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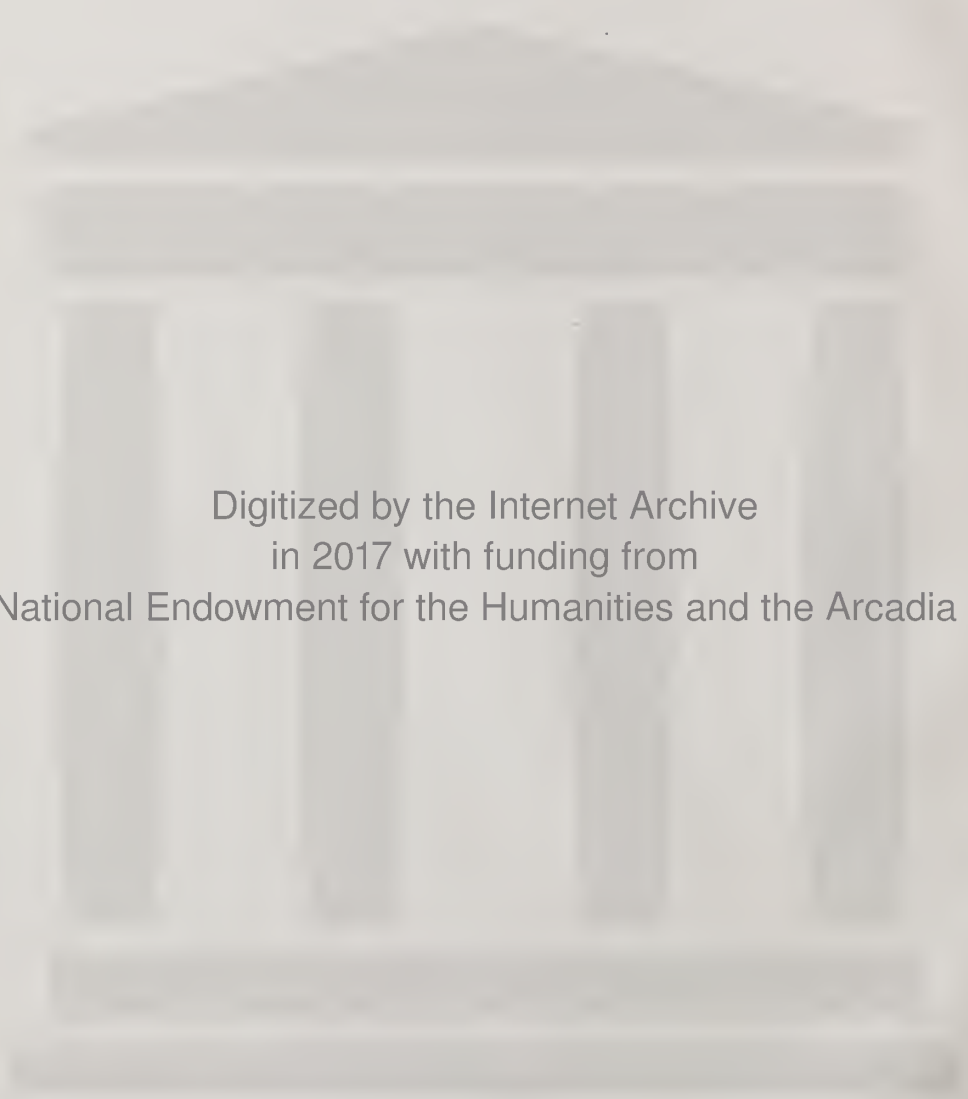












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*The* JOURNAL  
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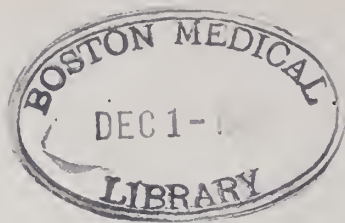
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Editor: LEE FORREST HILL, M.D., Des Moines

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# The JOURNAL

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## Iowa State Medical Society

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No. 1

### MODERN TREATMENT OF TRAUMATIC SHOCK\*

ELMER L. DEGOWIN, M.D., Iowa City†

We are beginning to understand some of the physiologic events which occur in secondary shock. When severe trauma is applied to the body there is external loss of blood, extravasation of blood or plasma into the injured tissue, or loss of plasma from a burned area. The diminution in blood volume by extravasation or by exudation of plasma from a burned surface is often far greater than the clinician would be led to expect. The consequent reduction in circulating blood volume is followed by a series of related events. The venous pressure is decreased so that the right side of the heart is not properly filled. This, in turn, leads to poor aeration of the blood and lowering of the oxygen consumption. The left side of the heart is insufficiently filled and the cardiac output is reduced. The peripheral circulation is thus impaired. The arterial blood pressure is reduced and there is slowing of the flow of blood. Tissue anoxia develops and the injured cells lose potassium to the blood plasma. In some manner the adrenal medulla is stimulated and constriction of the arterioles results. The significance of these secondary changes is debated. Minot and Blalock<sup>1</sup> have defined shock as peripheral circulatory failure resulting from a discrepancy in the size of the vascular bed and the volume of the intravascular fluid. Harkins<sup>2</sup> has characterized the situation as "progressive vasoconstrictive oligemic anoxia."

It is important to realize that the condition is progressive. The orthodox attempt to explain this fact has been to assume that all of the capillaries of the body become injured by the anoxia and their permeability progressively increases. Fine, Seligman, and Frank<sup>3 and 4</sup> have recently reported experiments which cast doubt on this hypothesis. They have shown that proteins labeled with radio-

active salts persist in the blood stream of shocked animals as well as they do in controls. Furthermore, the administration of three atmospheres of oxygen exerted no influence on the progress of the shock. They point out that the original disturbance in the physiologic mechanism of the circulation must possess fatal potentialities if not corrected sufficiently early. The longer the patient is allowed to remain in shock, the more severe the degree of the condition, and the less likely that any treatment will avail.

The clinician may expect to meet with secondary shock in any patient who has sustained severe hemorrhage, crushing injuries, or burns. The bleeding peptic ulcer and uterine hemorrhage furnish familiar examples of the first category. The crushing injuries may not be severe to induce shock. The trauma leading to loss of blood and plasma may be sustained during surgical operation. The release of a tourniquet, long applied to an injured extremity, may allow considerable loss of circulating fluid into the tissues. The soldier suffers the same types of injury as the civilian, but the incidence in time of war is tremendously increased. War Memorandum No. 1 issued by the Medical Research Council of Great Britain was entitled "The Treatment of Wound Shock."

The necessity of treating large numbers of patients in shock has compelled the adoption of more practical methods in diagnosis. Many American writers of recent years have emphasized that the fall in blood pressure is a late sign of shock and they have devoted their attention to methods of detecting incipient shock by measuring the degree of hemoconcentration. Although these methods are particularly valuable in the care of patients during operation, they require special laboratory procedures. They are frequently misleading when employed on the patient who has lost an unknown amount of blood. It now seems clearly established that hemorrhagic shock is not accompanied by the hemoconcentration seen in shock from burns or crushing injuries. It is therefore evident that clinical examination and simple determinations must

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†From the Department of Internal Medicine, University Hospitals.

be relied upon when large numbers of casualties are to be treated. Furthermore, many casualties are in severe shock when first examined so that methods used for the detection of incipient grades are unnecessary.

The British attacked the problem realistically. The observations made by the members of the British Army Blood-Transfusion Service on the casualties in the air raids of 1940 are especially pertinent.<sup>5</sup> The so-called "classic" clinical picture of shock has been described as mental apathy, pallor, depressed body temperature, fast pulse, low blood pressure, and sweating. Analysis of the data from twenty-four cases collected by a single group of observers under the trying conditions of the "blitz" showed that many of these signs were worthless. In many patients with severe shock the pulse rate was slow rather than fast. The mental state in seventeen out of twenty-four was clear and rational. This was true even a few minutes before death. Most patients were pale and had cyanosis of the lips and nails. The body temperature was usually subnormal and the extremities felt cold. Sweating was present in little more than half the cases. The most reliable single indicator of the condition of the patient was the level of the arterial blood pressure. A systolic pressure of less than 100 millimeters of mercury was considered diagnostic of some degree of shock. This sign failed only when the patient had previously suffered from hypertension. A "normal" blood pressure value for another patient might be a shock level for the patient with hypertension. These observers and others have noted that in young subjects with intense pallor the blood pressure may be unexpectedly high due to a marked degree of vasoconstriction. Nevertheless they require treatment for shock.

The measures to be employed in the treatment of shock have been recognized since World War I. These are: The control of hemorrhage when present; the application of heat; the replacement of lost fluids; the relief of pain; the administration of oxygen; and the restoration of circulating blood volume.

The necessity for the control of hemorrhage is obvious. The British now go so far as to say that if the application of the modern methods of treatment of shock are unsuccessful, this is strong indication that there is internal bleeding.

The application of heat to shocked patients has been performed excessively. Many are now of the opinion that the reduction of the skin temperature in shock is a compensatory and, perhaps, a protective mechanism. There is evidence that the application of external heat to the point where vasodilation is induced may further reduce the

circulating blood volume and increase the severity of the shock. The aim, therefore, should be merely to cover the patient to prevent extensive loss of heat from the body by radiation.

Many of the patients who succumb to injuries have become previously dehydrated by violent exertion. They also lose water in the sweating which frequently accompanies shock. The loss of a large amount of blood also entails the loss of water. In the absence of abdominal injury, water may be freely administered by mouth; otherwise intravenous infusions of dextrose or saline may be employed if transfusion is not sufficient.

The relief of pain is desirable, not only for humanitarian reasons but because restlessness tends to increase the degree of shock. In this war as in the last, however, it has been necessary to caution medical officers against the use of excessive doses of morphine, which tend to deepen the shock. In severely injured patients suffering much pain a valuable practice is the intravenous injection of 1/6 grain of morphine together with the subcutaneous administration of a similar dose. This secures very prompt analgesia permitting transportation of these patients.

Many patients in shock are cyanotic and obviously suffering from anoxemia. The administration of oxygen with a mask such as the Boothby, Lovelace, and Bulbulian apparatus is usually advised. Too much will not be expected of this procedure, however, when it is recalled that the reason for the anoxemia is usually a reduced blood flow rather than lack of aeration of the pulmonary epithelium.

Injections of desoxycorticosterone acetate or extract of adrenal cortex have not yet been proved valuable adjuncts in the treatment of shock.

There is now general agreement that by far the most important single measure in the treatment of shock is the restoration of the circulating blood volume. The intravenous injection of dextrose and saline solutions are of extremely doubtful value for this purpose because they leave the blood stream quickly. They should be employed only when more effective materials are not available. Transfusions of whole human blood, blood plasma or serum, or of human serum albumin are now the methods of choice in the restoration of blood volume. These materials are retained in the blood stream and increase the colloid osmotic pressure so that water is attracted from the tissues, thus increasing the blood volume.

It has been amply demonstrated that the transfusion of sufficient plasma into a patient in shock from hemorrhage will result in satisfactory alleviation of the condition despite the fact that the lost red cells have not been replaced. The expla-



nation for this seems to lie in the fact that most patients suffering hemorrhage retain sufficient red cells to act efficiently as oxygen carriers if the circulation is improved by restoration of the blood volume. There is, however, more tendency for relapse when the patient in hemorrhagic shock receives plasma rather than whole blood.

The problem frequently facing the physician is the treatment of a patient in shock from hemorrhage in whom the extent of blood loss is unknown. Formulae have been derived by which the volume of blood lost may be calculated by determining the hematocrit units before and after the transfusion of a known volume of plasma. These calculations are subject to some fallacies and are dependent on laboratory procedures which may not be readily available when immediate treatment is required. The British observers concluded that the rise in blood pressure after transfusions of blood or plasma was a sufficiently accurate indicator. Their experience also demonstrated in a striking manner that large volumes of blood and plasma were required to treat shock in severely injured patients who had been in shock for some time. It was found that, on the average, one pint of blood or plasma could be expected to produce a rise in systolic pressure of 10 to 20 millimeters of mercury. Quotation from some of their clinical notes<sup>4</sup> will illustrate the severity of the injuries treated and the methods employed.

"Case 1. Male, age 60. Seen 2½ hours after injury. Right leg completely destroyed from 2 in. below knee and small hole in abdominal wall, though splinter had not entered peritoneal cavity. Tourniquet had been applied 15 min. after injury and morphia gr. ¼ given 15 min. later. Mentally dull but rational, no pain, no thirst, pallor ++, cyanosis of lips and fingers ++, no sweating, very cold. Hb finger 100%, vein 104%, hematocrit 40%. Pulse impalpable, B.P. not recordable.

"After 1 pint plasma in 15 min. P.108, B.P. 40/?. After second pint plasma in 15 minutes P.110, B.P. 60/40, Hb finger 70%, vein 60%, hematocrit 25.5%. After 3rd pint plasma in 12 min. P.160, B.P. 80/50. After 4th pint plasma in 23 min. P.120, B.P. 105/55. Hb finger 47%, vein 45%, hematocrit 19%. Had now greatly improved in colour; pain in legs and abdomen. Had to wait for admission to theatre on account of congestion, during which time B.P. fell to 80/50 and 1 pint blood administered. Left theatre with B.P. 100/70. Amputation of leg through upper third of thigh, abdominal wall opened and f.b. removed. Anaesthetic G.O.E. After 24 hours condition excellent; P.78, B.P. 115/70, Hb finger 52%."

"Case 9. Male, age 16. Seen 1½ hours after injury. Compound fracture right thigh, much

laceration and pulping of bone, and compound fracture lowest third left leg, much laceration and pulping of bone; gross swelling of both limbs above site of injury. Morphia gr. ⅓ 45 min. after injury. Mentally clear, pain ++ when moved, thirst ++, pallor ++, cyanosis of lips +, sweating slight, cold. P. 112, B.P. 80/55. Hb finger 90%, ear 95%.

"After 1 pint plasma in 12 min., P. 108, B.P. 95/70. After 2nd pint plasma in 20 min. P. 108, B.P. 110/75. Taken to operating theatre for double amputation, during which 1 pint blood given in 28 min. and 1 pint plasma as drip. Left theatre with P. 104, B.P. 120/70. Uninterrupted recovery."

"Case 12. Female, aged 50. Seen 3 hours after injury; deep wound right leg, smashed right and left feet (hanging by threads) with tourniquets still applied. Morphia gr. ¼ had been given 30 min. after injury and repeated 2½ hours later. Mentally clear, no pain, thirst +, pallor +, cyanosis +, no sweating, temperature normal, B.P. 95/65, P. 58, Hb finger 95%.

"After 1 pint plasma in 20 min. P. 80, B.P. 110/80. After 2nd pint plasma in 40 min. P. 76, B.P. 118/85, Hb finger 74%. During this 40 min. consumed two cups of sweet tea; colour greatly improved. Taken to operating theatre for amputation and debridement.

"After 24 hours condition good; P. 80, B.P. 115/80. Six weeks later B.P. when lying in bed 160/120."

From experience in these and many more cases the British concluded that the average severely shocked patient required four pints of plasma or whole blood. They emphasized that transfusions of blood and plasma should be given at a fast rate in treating shock. In many cases they recorded that a pint of plasma was administered intravenously in ten minutes or from 40 to 50 cubic centimeters per minute.

The treatment of shock accompanying burns requires special consideration. Apparently the lowered blood volume can be accounted for by the loss of serum from the burned surface. This progresses for the first two or three days. The large amount of plasma protein which is lost in this manner has only recently been appreciated. The use of compression dressings on the burned surfaces seems to prevent some of the protein loss. If the burned area is large, tremendous amounts of serum are exuded with any form of local therapy. The plasma proteins should be quantitatively replaced during the first three days. Harkins<sup>2</sup> has developed a simple formula to estimate the amount of plasma necessary. Taking the normal hematocrit at 45 per cent, he gives 100 cubic centimeters



of plasma for every hematocrit unit over the normal.

In treating the casualties from the Cocoanut Grove disaster in Boston it was found that the severely burned patients required on the average of 10 units of plasma during the first twenty-four hours. A plasma unit is defined as 250 cubic centimeters or the amount which can be obtained from 500 cubic centimeters of blood. In many patients it was also found that whole blood transfusions were desirable because of the development of rather severe degrees of anemia.

It is well to recapitulate the dosages of blood and plasma for the treatment of severely injured patients. In shock due to hemorrhage the average patient required four pints of whole blood or four pints of plasma. This is approximately 2,000 cubic centimeters of whole blood or that taken from four donors. Two liters of plasma are derived from approximately 4,000 cubic centimeters of whole blood or the blood from eight donors. It is obvious that the efficient treatment of severe shock associated with hemorrhage or burns cannot be given if fresh blood transfusions are relied upon. There must be some forethought and preparation before the emergency arises so that the required material may be available for the instant use which effective treatment of shock demands.

The only feasible method of using whole blood transfusions in quantity and with the speed required in the treatment of shock is by the operation of a blood bank. A store of blood can be kept in the refrigerator and, if the assortment of bloods is large enough, all groups will be adequately represented. Methods are available by which whole blood can be stored for as long as thirty days. If the out-dating period is reached, the supernatant plasma may be aspirated and stored for a year. This represents, in some ways, the simplest solution to the problem. The disadvantage of the necessity for cross-matching has been greatly overestimated. A competent person can accurately cross-match and group bloods for a transfusion in fifteen minutes by employing the fast centrifuge technic.

Hundreds of thousands of transfusions have been given with preserved whole blood and certain facts are now well recognized. With proper methods of preservation the number of cells hemolyzing during storage or after transfusion is few indeed. Blood cells preserved in dextrose solutions survive in the body of the recipient nearly as long as do cells freshly collected from the donor. The reactions from preserved blood transfusions are no more severe or frequent than those from fresh blood. The prothrombin in preserved blood diminishes relatively slowly during storage. The plate-

lets and leukocytes disintegrate within a few days after collection, possibly within a few hours. It has now been accepted that the diffusion of potassium from the red cells into the plasma is harmless. It is becoming common practice to administer preserved blood without preliminary warming. Laboratory studies show that the chance of transmitting syphilis by transfusion of blood stored over three days is practically nil. This cannot be said for fresh blood in which the Wassermann reaction is negative. Blood drawn from a donor during the most infectious stage of syphilis will frequently be Wassermann-negative.

Considerable anxiety has been aroused on the part of many persons by the recent extensive publications in the medical literature on the Rh factor. The significance of this is gradually being appreciated and is being put in the proper perspective. Several years ago it was discovered that if the red cells of rhesus monkeys were injected into rabbits antibodies would be formed. With special technic it could be shown that the red cells of about 85 per cent of human beings would be agglutinated by this antiserum. Such bloods are said to be Rh positive. The remaining 15 per cent of bloods are Rh negative. The Rh positive or Rh negative factor is inherited according to the Mendelian law. In studying the bloods of women who gave birth to children having erythroblastosis fetalis it was discovered that the mothers are nearly always Rh negative while the bloods of the fathers and of the fetuses are Rh positive. Furthermore, such a mother occasionally becomes sensitized to the Rh factor of the fetus and develops an anti-Rh factor which agglutinates all or most Rh positive bloods regardless of the ABO grouping. These persons have severe or fatal reactions when transfused with Rh positive blood. It has been shown that Rh negative persons receiving many transfusions sometimes develop an anti-Rh factor which agglutinates Rh positive cells. But erythroblastosis fetalis is a rare disease in even a large obstetric service and the chances of encountering it are not great. Fifteen per cent of all recipients receiving multiple transfusions are potential subjects for the formation of anti-Rh factors but the development of sensitivity in these people gives plenty of warning. After several transfusions without reaction, a mild reaction occurs followed by successively more severe reactions from subsequent transfusions. If this clinical fact is borne in mind, the only difficulty will be encountered in transfusing pregnant women or those who have recently delivered stillbirths or severely jaundiced infants.

The advantages of plasma or serum over whole blood are the relatively long periods of storage and the fact that cross-matching and typing are not

necessary. The disadvantages are that the red cells must be discarded and that the preparation is more expensive than for whole blood. It has not been sufficiently emphasized that any processing of plasma or serum represents a definite increase in cost to the patient over the equivalent amount of whole blood.

The relative merits of plasma versus serum have been argued for several years. Serum has the advantage of being filterable and there is no fibrin to precipitate out when the fluid has stood for long periods of time. Plasma, on the other hand, will become cloudy on long standing but is thought by some to produce less reactions. Plasma cannot be satisfactorily forced through bacterial filters. Plasma has become much more popular in this country than serum, although there is no rational basis for this preference.

The simplest method for the preparation of plasma is from the sedimentation of stored whole blood. For this purpose the use of a dilute dextrose-citrate blood mixture is desirable because the loss during aspiration of the supernatant plasma is reduced to a minimum. This method also allows the potential use of the whole blood until the out-dating period is reached. Plasma in this sense is a by-product of a whole blood bank. This dilute plasma is usually placed in separate flasks and administered without cross-matching.

Less dilute plasma is prepared by centrifugation of cells in citrated blood. This requires a centrifuge of large size and adds considerably to the expense of the processing. Citrated plasma is usually pooled, the plasma from six or more bloods being mixed and later apportioned into suitable storage flasks. Pooling is performed primarily for the purpose of diluting a single plasma which might contain agglutinins in high titer. The process constitutes one more operation where bacteria might be introduced and careful bacteriologic control must be exercised.

Plasma may be stored in the liquid state at room temperature or in the refrigerator at 2 to 5 degrees centigrade. Liquid plasma suffers the aesthetic disadvantage of slowly forming a precipitate which is thought to be fibrin. This forms more copiously in undiluted plasma so that dextrose solution is usually added to liquid plasma. The precipitate forms more in the refrigerator than at room temperature. The plasma proteins in liquid plasma slowly denature but in the course of several years of storage this process has not progressed far enough to render the material unsuitable for the treatment of shock. The prothrombin disintegrates in the course of a month

or so and the complement is lost. These changes are insignificant if the plasma proteins are the desirable elements.

The next most simple and inexpensive method of storing plasma is by freezing. The plasma is prepared as previously indicated and is then placed in a freezing chamber at  $-15$  to  $-20$  degrees centigrade where it is frozen solid in a couple of hours. The plasma may be kept in this state until required. The flask containing the frozen material is then placed in a water bath at 37 degrees centigrade and melted as quickly as possible. This process usually consumes about thirty minutes. Frozen plasma should be administered within a few hours after melting to avoid heavy precipitation which occurs on further standing. Frozen plasma which is thawed at temperatures lower than 37 degrees centigrade also tends to form a heavy precipitate. The advantages of frozen plasma are that the complement and prothrombin may be kept intact for indefinite periods; the plasma proteins are not denatured; and there is, of course, no precipitation while in the frozen state. The disadvantages are the added expense of freezing and maintenance of refrigeration and the time consumed in thawing the plasma after an emergency has arisen. The latter circumstance may be circumvented by storing a few flasks in the liquid state ready for immediate use while the remainder is being thawed.

Plasma or serum may be stored in the dried state. This is accomplished by rotating the flask of plasma in a freezing mixture so that it forms a shell of ice on the walls of the flask. It is then placed in a chamber from which the air is pumped and a high vacuum obtained. All of the water is thus extracted from the plasma and the flask is hermetically sealed in vacuo. The plasma then appears in the form of a yellow to orange powder which is highly soluble in water. This is termed lyophilized plasma. When properly processed it can be reconstituted in thirty seconds by the addition of sterile distilled water. The merit of this process is that the plasma can be kept indefinitely at room temperature without deterioration. The objections are that it is the most expensive process so far described, employing much special equipment which is beyond the reach of the average institution. A unit of dried plasma takes up twice as much shipping space as a unit of liquid plasma because the bottle of dried powder must be accompanied by a bottle of similar capacity containing sterile distilled water.

The most recent development in the field of plasma research has been the perfection by E. J. Cohn of Harvard University of a chemical method



for the separation of the plasma proteins in large quantities. The molecule of serum albumin is approximately one-half the size of the globulin molecule and therefore exerts twice the osmotic pressure of the larger particle. Although the albumin constitutes about 60 per cent of the plasma protein, it is responsible for approximately 80 per cent of the colloid osmotic pressure exerted by the whole plasma. Pure serum albumin is soluble in water in almost any concentration and is extremely stable in solution for long periods under tropic conditions. The injection of human serum albumin solution is therefore efficacious in the treatment of shock. A vial containing 100 cubic centimeters of a 25 per cent solution of human serum albumin contains the osmotic equivalent of approximately 400 cubic centimeters of liquid plasma. It takes up only one-fourth as much shipping space as liquid plasma and one-eighth as much space as dried plasma.

The introduction of dried plasma and of liquid serum albumin made possible the use of solutions which are more concentrated than isotonic. Dried plasma may be merely diluted with less water than it originally contained. It was early hoped that the administration of plasma or albumin in concentrated solution would be more effective in the treatment of shock than were the isotonic concentrations of these substances. Clinical trial and laboratory experiment have not substantiated this hope. It has been found that shocked animals survive less well when treated with hypertonic concentrations of plasma. The persons treated for shock are frequently dehydrated before the injury occurred or by the concomitant loss of blood and sweat and are found to revive better with the isotonic or dilute solutions.

Substances other than those derived from human blood have been proposed for the treatment of shock. All of these have had the merit of being easier to procure than human blood. Among the most prominent of these have been pectin, isinglass, and gelatin. Their status at present must be regarded as wholly experimental and to extend much hope for their ultimate success would be premature and certainly unfortunate when blood is urgently needed for the armed forces. Pectin is a complex polysaccharide derived from the peel of many fruits, notably of the citrus varieties. It is easily manufactured but there is difficulty in maintaining uniformity of molecular aggregates during sterilization. Isinglass is a protein mixture which is extracted from the swim bladders of certain fish. Gelatin is a similar protein preparation derived from animal skins or bones. In both of these substances there is difficulty in chemical definition and

standardization of the product. In all three, rouleaux formation and increase in the sedimentation rate are disadvantages. Much work remains to be done before any of these can be perfected as blood substitutes.

When plasma is prepared as a by-product of a blood bank the only waste is in the discarding of the out-dated red cells and this loss is minimal under efficient operation. When the blood is specifically processed for the plasma it yields, there is usually a great loss from discarded red cells. The erythrocytes separated from the plasma may be kept for a maximum of about five days in the refrigerator. During this time they may be typed, resuspended in saline, and transfused into patients with anemia. The relatively short period of storage precludes the widespread use of red cell suspensions derived from a large program for the processing of plasma. In the preparation of serum the red cells are lost entirely by the clotting of the blood.

An attempt has been made to summarize the merits of the various derivatives of human blood in respect to their physical characteristics. One should use discrimination in selecting the particular substance which is best suited to the circumstances for which it is desired. Certain qualities which make a product highly desirable for the armed forces may be unnecessary and needlessly expensive when employed in a well-equipped civilian hospital. Dried plasma, for example, with its high stability is ideal for the armed forces because it can be stored at tropic temperatures in some medical supply depot for four or five years with no special attention. A civilian hospital can with ease care for smaller amounts of some more unstable preparation which is less expensive to process.

During the current year the American Red Cross plans to collect blood from 4,000,000 donors in some thirty large metropolitan areas in this country. The blood is sent to pharmaceutical firms where it is processed into dried plasma or human serum albumin for the armed forces. This is the largest project in the preparation of biologicals ever undertaken in the history of medicine. The dried plasma is reconstituted before use to isotonic concentration. Human serum albumin is prepared in liquid form at four times isotonic concentration. This represents a deliberate compromise of the advantages of an isotonic solution in favor of the compactness afforded for shipping. Dried plasma may be purchased from commercial firms for civilian use but it must be realized that the purchase price includes a fee for whole blood



to the professional donor who supplies it. The average patient who must receive the plasma from four donors may well afford a fee for processing and transfusion and can supply four gratis donors; he may be unable to stand the added expense of paying for the blood.

It has long been appreciated that an important measure in the preparation of the country against the possibility of air raids was to insure the fact that civilian hospitals were equipped to treat large numbers of casualties in shock. To accomplish this the Blood Plasma Section of the Office of Civilian Defense has encouraged the formation of new blood banks and the extension of those already in existence. Key hospitals have received additional equipment under an arrangement whereby the hospital agrees to process and store for the duration of the war a reserve supply of plasma to be employed in the treatment of persons injured as the result of enemy action or those involved in major civilian disasters. The reserve must consist of at least one unit of plasma per hospital bed. This material is under requisition of the local chief of emergency medical services, the state chief of emergency medical services, or the regional medical officer of the Office of Civilian Defense. Certain standards have been set up for processing this plasma. The plasma may be made by sedimentation from whole blood or by centrifugation. It may be stored as liquid plasma with an out-dating period of one year or in the frozen state with an out-dating period of three years. There is also a provision for the use of plasma from these stores for routine hospital needs provided it is replaced within a reasonable time.

Under such a provision the State University of Iowa Hospitals received a grant from the Office of Civilian Defense for supplies and equipment. During the months of December and January nearly 800 donors who were residents of Johnson County or students at the University gave their blood which was processed into plasma. The plasma has been stored in the frozen state and will be employed for the treatment of casualties resulting from enemy action. The project was primarily for the protection of Johnson County. Most of the plasma is stored in Iowa City but smaller amounts will be stored at Burlington, Davenport, Clinton, Waterloo, Dubuque, and Cedar Rapids. This will be under the supervision of the State Chief of Emergency Medical Services and the local chiefs for the duration of the war. It cannot be too strongly urged that each community make an attempt to be self-sufficient in this matter because only in this way can a comprehensive state-wide and national project be built up.

It may truly be said that such a program is community life insurance.

Many small hospitals have set up their own blood and plasma banks employing the plan which seemed most suited to the particular community. The first problem is to secure donation of sufficient blood to serve as "capital" for the bank. This is secured by an appeal to the public or by the generosity of the service clubs or some organization such as the American Legion. After the capital is obtained the blood or plasma bank is thereafter operated upon an exchange basis. Whenever a patient in the hospital receives a transfusion of whole blood or plasma from the bank, the relatives or friends of the patient replace the blood withdrawn from the bank. Some hospitals merely charge the patient a processing fee and accept an amount of blood equivalent to that which was given. Other arrangements have required replacement of twice the blood given but involve no charge for processing. In planning a project of this sort one is constantly amazed at the eagerness with which the layman cooperates to donate his blood. Within the last five years it has become commonplace.

Some hospitals may not be equipped with apparatus or competent personnel to process plasma. The Iowa State Department of Health will assist in such a circumstance. Arrangements can be made so that a number of donors appear at the hospital on a predetermined day and a bleeding team from the Health Department will collect the blood, transport it to the laboratory, process the plasma, and return the finished plasma, charging only the cost of the processing.

From this resumé it will be evident that the means are now available so that no community having a hospital need be unprepared to treat patients who develop shock in the course of normal civilian life. With a little foresight, these facilities may be expanded sufficiently so that casualties incurred from air raids or other disasters may receive the most efficient treatment known at present to the profession.

#### REFERENCES

1. Minot, A. S., and Blalock, A.: Plasma loss in severe dehydration, shock and other conditions as affected by therapy. *Ann. Surg.*, cxii:557-567 (October) 1940.
2. Harkins, H. N.: Recent advances in study and management of traumatic shock. *Surg.*, ix:231 (February); 447 (March); 607 (April) 1941.
3. Fine, J., and Seligman, A. M.: Traumatic shock; study of problem of "lost plasma" in hemorrhagic shock by use of radioactive plasma protein. *Jour. Clin. Investigation*, xxii:285-303 (March) 1943.
4. Frank, H. A., and Fine, J.: Traumatic shock; study of effect of oxygen on hemorrhagic shock, *Jour. Clin. Investigation*, xxii:305-314 (March) 1943.
5. Kekwick, A., Marriott, H. L., Maycock, W. d'A., and Whitby, L. E. H.: Diagnosis and treatment of secondary shock: study of 24 cases. *Lancet*, i:99-103 (January 25) 1941.

## DISTRIBUTION OF POOLED NORMAL HUMAN SERUM AND PLASMA IN IOWA\*

CARL F. JORDAN, M.D., Des Moines

Exigencies of the war and continued advances in the field of medicine have brought the terms blood banks, plasma, and serum into the limelight and have caused them to be spoken frequently from the lips of millions of interested persons.

### BLOOD PLASMA BANKS IN IOWA

Physicians associated with certain hospitals in Iowa have for years been familiar with the technic and have frequently performed blood transfusions. The blood transfusion laboratory at the University Hospitals in Iowa City was organized in September, 1938, under the direction of Plass and DeGowin. In July, 1940, DeGowin and Hardin recorded their experience with 1,600 transfusions as carried out in the University Hospitals.<sup>1</sup> In the same year, DeGowin and associates<sup>2</sup> reported results of various studies on preserved human blood.

Levinson and associates,<sup>3</sup> in February, 1940, reported on the use of pooled serum in combating shock and severe hemorrhage, induced experimentally in dogs. These workers demonstrated the advantages of serum over crystalloid substances, stating that human serum as a blood substitute should prove highly useful in civilian emergencies as well as in time of war.

### THE SERUM-PLASMA CENTER OF THE STATE DEPARTMENT OF HEALTH

Plans for the establishment of a Serum Center (now Serum-Plasma Center) as an integral part of the Iowa State Department of Health were realized after July 1, 1936. The purchase and installation of necessary equipment were made possible by funds derived through the United States Public Health Service. Plans for the Serum Center were brought to fruition through the wise foresight and courageous effort of Dr. Walter L. Bierring, State Health Commissioner of Iowa. The Serum Center began its activities February 20, 1937, for the primary purpose of processing convalescent serum. Stimulated by the report of Levinson and his associates, the collection of blood for pooled normal human serum to combat shock was started in May, 1940. In December, 1940, a year before the treachery at Pearl Harbor and entrance of this country into the World War, four clinics were held at which 103 donors contributed blood for pooled normal human serum.

### COOPERATION WITH EMERGENCY MEDICAL SERVICE FOR CIVILIAN DEFENSE

In September, 1942, Colonel Wallace D. Hunt, Regional Medical Officer for Civilian Defense, Seventh Service Command, Omaha, conferred with state officials in Des Moines regarding the procurement and distribution of pooled normal human serum and plasma in Iowa. Those participating in the conference included Walter L. Bierring, M.D., State Health Commissioner; Thomas A. Burcham, M.D., Chief Medical Officer for Civilian Defense, and Elmer L. DeGowin, M.D., Field Consultant to the Blood Plasma Section of the Office of Civilian Defense. Plans were formulated whereby the facilities of the Serum-Plasma Center of the State Department of Health and of blood banks maintained in various hospitals might be more closely interrelated and rendered available for all civilian as well as war connected emergencies.

In response to request from Colonel Hunt and Dr. Burcham, information was assembled through the office of the State Health Commissioner relative to: (1) the amount and distribution of pooled normal human serum as supplied to hospitals from the Serum Center of the State Department of Health; (2) hospitals which maintain blood plasma banks and amounts of plasma on hand; and (3) the amount of plasma and location of hospitals which, although not maintaining a blood plasma bank, keep one or more units of plasma on hand.

At the time of the state-wide hospital survey in November and December, 1942, blood banks were maintained in the following cities and hospitals: Cedar Rapids, Mercy Hospital; Clinton, St. Joseph Mercy; Council Bluffs, Mercy; Des Moines, Mercy; Iowa City, University; Mason City, St. Joseph Mercy; Ottumwa, Ottumwa; Sioux City, St. Joseph and St. Vincent's; and Waterloo, Allen Memorial. The ten hospitals with blood plasma banks had on hand between 315 and 419 units (250 cubic centimeters) of plasma; forty-four hospitals, including five in or near strategic areas, carried 354 units of pooled normal serum distributed from the Serum Center where 116 more units were stored or in process of preparation. In addition, 26 hospitals had 61 to 69 units of plasma, obtained in most instances from commercial companies.

In March, 1943, Drs. Thomas A. Burcham and Edmund G. Zimmerer, State Chief and Deputy State Chief, respectively, of the Emergency Medical Service for Civilian Defense, published an article entitled "The Use of Civilian Defense Blood Plasma Reserve in Iowa."<sup>4</sup> This article served to clarify misunderstanding, also to inform physi-

\*Presented before the Ninety-second Annual Session, Iowa State Medical Society, Des Moines, April 29 and 30, 1943.



cians and the various county chiefs of the Emergency Medical Service, and through them the lay public, as to the purpose for which plasma and serum are to be used and the method of their distribution in Iowa.

#### SPONSORS OF DONOR CLINICS

During the months of 1942 and the first four months of 1943, many patriotic groups and individuals cooperated with the Serum-Plasma Center in the giving of blood for emergency use.

Seventeen blood donor clinics in nine cities and towns were arranged by medical directors of district health services. The United Service Women sponsored eight such clinics, three in Allison (Butler County), one each in Eldora, Hampton, Nevada, St. Ansgar, and Waverly. Nine clinics were sponsored by hospitals, four in Ames, two each in Boone and Emmetsburg, and one in Sac City. Other sponsoring agencies have been Chambers of Commerce, Lions, Kiwanis and Rotary Clubs, boys at the Training School in Eldora, county units of the American Red Cross, college fraternities, and the American Legion Auxiliary. Clinics were held in Forest City, Mason City, and Estherville in cooperation with those in charge of the state donor program.

Among the first to request that they might serve as donors were over three hundred men in the State Penitentiary. The Department's mobile unit made three visits to Ft. Madison, one in February, one in March, and again in July, 1942, to obtain blood from men who, although they have erred and lost their freedom, yet desire to serve their country and to participate in this work.

Blood donor clinics in each county are held in cooperation with the county chief of Emergency Medical Service, who is notified of the time and place of each clinic. A schedule of such clinics is complete for the coming months of June, July and August and more requests keep coming in.

A word of appreciation is due also to the young women who comprise the mobile unit. They make long trips and work overtime in order to keep up with the schedule and satisfy the many individuals who want to have a share in the program.

#### DONORS AND DONOR CLINICS

In the three-year period beginning May, 1940, through April, 1943, staff members of the Serum-Plasma Center of the State Department of Health conducted 112 bleeding clinics in 42 large and small urban communities in Iowa. During the same time interval, blood was secured from 4,403 donors; serum from these donors totaled approximately 1,656 half-pints.

Soon after a bleeding clinic has been held and blood has been brought back for necessary labora-

THE SERUM-PLASMA CENTER  
IOWA STATE DEPARTMENT OF HEALTH  
CIVILIAN DEFENSE SERUM AND PLASMA BANK

### Blood Donor Certificate

This Certifies That MARY SMITH  
of Smithville, Iowa, has served as a blood donor  
and has participated in a statewide program sponsored locally by  
United Service Women  
whereby serum and plasma are made available for emergency needs.  
On behalf of the State Department of Health, The Emergency Medical Service, Civilian Defense,  
The United States Public Health Service, Hospitals, Elementary Health Groups, and Local Health agencies,  
this certificate is conferred as a token of appreciation.

Blood Type O (SIGNED) Walter L. Biering  
WALTER L. BIERING, M.B.  
Commissioner  
Iowa State Department of Health

Date APRIL 1, 1943

tory tests and for processing, blood donor certificates such as the accompanying facsimile are completed and returned to the locality concerned for distribution to the donors. The serum of each donor is typed for blood group, and this information is included on the certificate, together with the name of the local sponsoring agency.

#### PLASMA FOR SMALLER HOSPITALS

On February 17, 1943, a plan was effected through the office of the State Health Commissioner, whereby the Serum-Plasma Center of the State Department of Health receives citrated blood from hospitals, prepares plasma, and returns the finished product to hospitals which participate in such a program.

The Office of Civilian Defense, Washington, D. C., has made grants-in-aid to a limited number of hospitals located in vulnerable (for the most part coastal) areas and which have a capacity of 200 or more beds. Such hospitals are expected to have on hand for war emergency needs as many 250 cubic centimeter units of plasma as there are hospital beds. With few exceptions hospitals in Iowa must depend upon alternative methods for obtaining blood substitutes like plasma and serum. Although essential equipment including an electric centrifuge may be ordered, immediate delivery is impossible due to priority regulations and war conditions.

The Serum-Plasma Center has installed a new centrifuge and purchased other supplies necessary for the preparation of plasma. The plan of cooperation with interested hospitals is outlined as follows:

1. It is assumed that a participating hospital is equipped with bleeding bottles and necessary administration accessories to collect citrated blood and to complete requirements for immediate blood transfusions. Such bottles and accessory articles may be used in the proposed cooperative project provided that they conform with the standards of the National Research Council as outlined in the Manual on Plasma Preparation as issued by the Office of Civilian Defense.

2. A staff physician may collect from four to

eight 500 cubic centimeter bottles of citrated blood from local donors and forward the blood immediately, express prepaid, to the Serum-Plasma Center, State Department of Health, Des Moines.

3. When the blood-filled containers are received, as many have been during the weeks following announcement of the plan, the plasma is separated, subjected to serologic and bacteriologic tests in accordance with regulations of the Biologics Division of the United States Public Health Service and of the National Research Council's Subcommittee on Blood Substitutes, and pooled into an approved type of dispensing flask.

4. After preparation, pooled plasma-filled bottles are returned, transportation charges collect, to each hospital for storage at room temperature (or in the frozen state) until time of use.

5. Until further notice, the actual cost to a participating hospital is \$3.50 for each 250 cubic centimeter unit of plasma as prepared from bottles of citrated blood.

6. The number of bloods collected, as well as the amount of plasma processed, rests with the hospital administrator and staff, as does the number of units of plasma to be reserved for emergency need.

7. The purpose of the Department's Serum-Plasma Center is to offer its facilities to hospitals which desire to secure safe, sterile plasma adequate for their needs at minimum cost.

#### THE FUTURE OF BLOOD PLASMA AND BLOOD SERUM BANKS

It appears certain that in the days to come there will be an ever increasing demand for blood banks and for blood substitutes such as pooled normal human plasma and serum. All hospitals which can afford equipment and laboratory supplies necessary to insure a product free from contamination, should maintain a blood plasma bank. It seems desirable, moreover, that there be a central serum-plasma center, properly equipped and adequately housed, to serve the many hospitals which may not have the needed facilities. Finally, and in view of the remarkable results which so often attend the early, careful employment of blood substitutes, it is desirable that members of the medical profession become plasma-serum conscious to a greater degree, so that the benefits of modern medicine may be available to all in time of need.

#### REFERENCES

1. DeGowin, Elmer L., and Hardin, Robert C.: Reactions from transfusion of preserved blood; experience from 1,600 transfusions. *Brit. Med. Jour.*, ii:1-5 (July 6) 1940.
2. DeGowin, Elmer L., and associates: Studies on preserved human blood. *Jour. Am. Med. Assn.*, cxiv:850-861 (March 9) 1940.
3. Levinson, Sidney O., Neuwelt, Frank, and Necheles, Heinrich: Human serum as blood substitute in treatment of hemorrhage and shock. *Jour. Am. Med. Assn.*, cxiv:455-461 (February 10) 1940.
4. Burcham, Thomas A., and Zimmerer, Edmund G.: Use of civilian defense blood plasma reserve in Iowa. *Jour. Iowa State Med. Soc.*, xxxiii:125-127 (March) 1943.

## STAPHYLOCOCCIC SEPTICEMIA, TONSILLAR IN ORIGIN\*

JOHN E. ROCK, M.D., Davenport

We have all been taught and know from experience that certain virulent members of the Streptococcus family produce a malignant and highly fatal form of septicemia. With this fact there is none to disagree. The fact which is more or less contrary to general opinion and which we may not realize is that the Staphylococcus produces the most deadly form of septicemia or general sepsis.<sup>1</sup> Neither are such cases rare, although physicians, especially those in private practice, apparently do not see as many of these cases as they do of the streptococcic variety. According to Mendell<sup>2</sup> the ratio is 2.3 to 1 in favor of the Streptococcus, and these figures approximate the 3 to 2 ratio of Rosenow and Brown.<sup>3</sup> In another report<sup>4</sup> the ratio is 2 to 1. Records from the same source show the general incidence of the disease to be thirty-two known and proved cases in 98,825 hospital admissions in a six year period.

We are often inclined to consider this germ, with its usually low virulence and its extremely common and almost universal distribution, to be a producer of indolent reactions and secondary infections, and to further think of it as a necessary or at least a minor evil. We are liable to forget or underrate its ability, under certain conditions, to produce a septicemia in which the mortality rate can reach a shocking level, such as the one of 91.4 per cent reported by Stookey and Scarpellino.<sup>5</sup> Others report 100 per cent recovery in five cases, and an over-all mortality rate of 43.95 per cent in 32 cases.<sup>4</sup> The danger from the effects of this organism is increased by its mode of onset, which may vary from a few vague symptoms to that of sudden severe manifestations of an overwhelming infection with prostration, out of which death may ensue in a matter of hours.

The portal of entry may be from a minor abrasion of the skin or mucous membrane, or a pimple or small furuncle causing little local manifestation and demanding respect only because of its location on the upper lip or in the nasal vestibule or ala. Again, it may be a minor operation, the extraction of a tooth, or a blow. Often slight trauma of one of the long bones will cause a weakened local condition which allows the bacteria to thrive. Septicemia has been known to follow a peritonsillar abscess<sup>6</sup> and recurrent tonsillitis.<sup>15</sup> Some idea of the sources and importance of the possible avenues can be obtained from the following statistics in which 122 cases were reported,<sup>6</sup> showing the sources as follows: Skin 57, respiratory tract

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30, bone 11, genito-urinary tract 11, circulatory system 1, and unknown 12. The mortality rate in this series was 81.97 per cent. The season has little effect on the incidence. The study<sup>6</sup> indicates that two out of three cases occur in males, and that two-thirds of the cases occur in patients under forty years of age. The age variations are from ten weeks to seventy-two years. The prognosis is best in patients under thirty years of age and least favorable in those in the first decade. Recovery in this group seldom occurs.

To define staphylococcic septicemia and to prove the diagnosis, one must have a few basic principles, as in any other diseased condition. Kolmer<sup>7</sup> defines the condition as "an infection of the blood by Staphylococci, their pathogenic presence and products in the blood associated with an infection of fixed tissues, resulting in severe constitutional disturbances with the signs of sepsis." MacNeal, Frisbee and McRae<sup>8</sup> offer the following criteria for the establishment of the diagnosis: The patient must have shown signs and symptoms of clinical septicemia and there must be reasonably trustworthy evidence that Staphylococci are actually alive in the blood stream (bacteremia). They will accept as evidence of bacteremia postmortem demonstration of multiple pyemic lesions containing Staphylococci, or the adequate demonstration of such pyemic lesions by surgical operation during the life of the patient. The most faith should be placed in a carefully and properly done blood culture.

#### CHARACTERISTICS AND PROGNOSIS

According to Kleiger and Blair<sup>9</sup> it is possible to determine from the clinical picture and history whether the symptoms are primarily those of the effect of the Staphylococci or their toxin. In persons under thirty years of age highly toxigenic Staphylococci cause a disease which is hyperacute and rapid. The pulse rate is high and out of proportion to the height of the temperature, and symptoms of irritation of the central nervous and gastro-intestinal systems are evident with a marked increase in the unsegmented polymorphonuclear neutrophil cells in the circulating blood. People over thirty are not affected by the toxins but by the Staphylococci themselves. The course of this illness is not as rapid or acute, and the symptoms indicate a focal infection plus a gradual degeneration of body processes such as are seen in an extended illness. The prognosis here depends on the health of the patient prior to the infection as well as the location of the focus or foci. Death may result in these cases when predisposing or intercurrent illness attacks some vital organ or some organ which cannot be drained. Individuals

resistant to the toxin are nevertheless subject to the infectious process caused by the organism.

Staphylococcic septicemia in patients with recurrent osteomyelitis, an infrequent complication, is considered by some to be fatal, while Mitchell and Chapman<sup>10</sup> show 15 deaths in 20 patients in which the skin was the primary focus and only 7 deaths in 18 patients with osteomyelitis. Any debilitating condition such as cardiac disease, diabetes, or prostatic obstruction of long standing should cause one to give a poor or at least a guarded prognosis. The duration of the disease, excluding, of course, those who die quickly, varies from two to four months from the onset of symptoms. The duration has and no doubt will be further reduced with the use of the sulfonamide drugs. The great majority of the cases are due to the *Staphylococcus aureus*, as many as 90 per cent by some authors, and all of the cases reported by Skinner and Keefer<sup>6</sup> were such.

The blood picture shows a marked secondary anemia. In the cases of longer standing this is probably due to the hemolytic action of the organisms and the toxic action on the red cell formation centers. Leukocytosis is usually present, although the exact opposite has been noted. Either extreme is thought by some to indicate a doubtful prognosis, especially when the polymorphonuclear neutrophil count approaches 100 per cent. The blood culture must of necessity be positive, although the first one, whether reported positive or negative, cannot be wholly accepted and must be checked by competent people because of the obvious fact that the ever present *Staphylococcus* can easily become an invader and give a false positive.

The urinalysis reveals findings similar to those in almost any febrile disease. There is a marked weight loss and disturbing to complete anorexia. Weakness naturally follows in the wake of these and may be further complicated by uncomfortable bed sores. Teeth become loosened, grayish exudates appear on buccal and pharyngeal mucosa, and the patient is nervous and worried and often presents a cadaverous appearance.

Complications are common and in one series were present in 82 per cent of the cases.<sup>6</sup> Some patients, however, escape entirely. Metastatic abscesses in the soft tissues, fixed organs, bones, and lungs are often seen and dangerous when they cannot be attacked surgically for drainage. Abscesses occasionally occur in a manner, such as around the kidney,<sup>11</sup> in which the signs and symptoms may cause the septicemia to be overlooked or forgotten. To further complicate the picture, there is often no correlation between the portal of entry and the appearance of the secondary



infection, and it has been known to occur as a puerperal sepsis a week after cesarean section.<sup>12</sup>

Treatment naturally is the most important factor to the patient. Prior to the discovery of the sulfonamide drugs, various methods of treatment were employed. The use of blood transfusions and the drainage of accessible abscesses were the two most common procedures, and, as everyone knows, the results were often very disappointing. The matter of prime importance was to sterilize the blood stream. The aniline drugs were tried with no results. Neoarsphenamine has been tried by several individuals with good results such as were reported by the LeCocqs.<sup>13</sup> They recorded 76 per cent recovery in 21 patients. They gave an initial dose of .15 gram and increased the dosage gradually every three days to a maximum of .45 gram, and in no case did they give more than seven doses. Blood transfusions have been standard and probably always will be, while general treatment, rest, and nourishment, as in any debilitating disease, are essential. Bacteriophage and antitoxin have had their trials, the results of which were mainly disappointing. To date the sulfonamide drugs have given the best results. Care must be used in their administration, however, since sulfadiazine is contraindicated with blood transfusion. The literature reveals many cases in which patients were treated by and recoveries credited to the sulfa drugs. My search of the literature indicates that all of these drugs have been used, but it seems that sulfathiazole and sulfamethylthiazole have given the best results.

A therapeutic suggestion may be gleaned from Lyons<sup>14</sup> when he states that the weight of evidence favors the hypothesis first emphasized by Adams, Welch and Wirchow; that is, when bacteremia arises from an intravascular infection such as phlebitis or thrombophlebitis it is accompanied by a white blood cell count of 15,000 or more, chills, and fever to 103 degrees, and it can be attacked surgically.

While there probably are some cases, both reported and unreported, similar to the one I wish to present, my search of the literature revealed only one in which the portal of entry was definitely credited to the tonsils.

Hamilton and Price<sup>15</sup> report a case of staphylococcal pyemia in a boy of nine in which the diagnosis before death was impossible due to the semicomatose and practically moribund condition of the patient when first seen. Death came three hours after the patient's admission to the hospital. Postmortem examination showed septic thrombi in the peritonsillar capillaries in the process of forming nuclei for the dissemination of emboli such as those demonstrated in the lung. The teeth,

middle ears, gallbladder, and appendix were excluded, no lesions were found in the brain or kidneys, and there was no splenic tumor. They did not find all of the classical signs of septicemia, and the factor which started the train of events was a minor pain in the upper left arm, examination of which revealed an osteomyelitis.

The case I wish to add is one in which the tonsils were proved to be the source of the septicemia. At least the patient made his recovery after the removal of these organs. Laboratory studies showed a smear and culture of *Staphylococcus aureus* from which an autogenous vaccine was made. The same organisms were recovered from direct smear of the tonsils before operation as on blood culture.

#### CASE REPORT

Through the courtesy of A. B. Kuhl, Sr., M.D., of Davenport, I saw this patient on June 1, 1942, and at Dr. Kuhl's request I removed the patient's tonsils the following morning. The history and records of examination, treatment, and progress are from Dr. Kuhl's office and hospital charts.

About the first of April, 1942, this patient, a man twenty-six years of age who then weighed 180 pounds, noticed his appetite was failing and he was losing weight. There was no history of any illness, accident, or other occurrence which would account for his complaints. On May 2, 1942, he consulted Dr. Kuhl, who sent him into Mercy Hospital for examination and diagnosis.

On admission to the hospital the patient's temperature was 99 degrees, and it reached 100 degrees during the first twenty-four hours. General examination revealed nothing except evidence of a moderate loss of weight. His first day in the hospital was significant because of his almost complete anorexia and two attacks of vomiting. Neoprontosil, 5 cubic centimeters intramuscularly every five hours, was administered. This was discontinued after the first twenty-four hours.

X-ray examination of the chest was negative. Laboratory reports revealed a rather low white blood cell count of 6,700, mild anemia, a red blood cell count of 4,740,000, and a normal differential count, while the urinalysis showed a mild trace of albumin and a few granular casts and pus cells.

A blood culture was taken May 4, 1942, and not until May 7, three days later, was anything seen. The report on this day read "many *Staphylococcus aureus* found." The patient was then given sulfathiazole, 15 grains every four hours.

The patient's blood group was found to be Group II, and the first transfusion of 350 cubic centimeters of citrated blood was given. At this time there was considerable nausea aggravated or

caused by the sulfathiazole. The patient's fever did not go above 100.2 degrees, his appetite was very poor, and his weight dropped to about 100 pounds.

On May 10 the sulfathiazole administration was reduced to 15 grains every six hours, and it was discontinued on May 16.

On May 23, 200 cubic centimeters of citrated blood were given in 500 cubic centimeters of normal saline solution, and the nausea, poor appetite, and loss of weight continued. The blood culture was again positive on May 27, showing a profuse amount of *Staphylococcus aureus*. The administration of sulfathiazole, 15 grains every four hours, was again resumed, and intravenous glucose was given regularly. Regardless of this treatment, the patient continued to fail, and on June 1 a direct smear from the tonsils was reported as "loaded with *Staphylococci*." On the following day the tonsils were removed.

There was nothing spectacular during the post-operative course. The sulfathiazole administration was discontinued on June 3, two days following surgery. Blood cultures on June 5, 8, and 11 were negative. These were repeated on June 15 and 19 and were negative. On June 20 the white blood count had dropped to 3,800 and the red count was 3,060,000. The patient's temperature varied from 98 to 100.5 degrees and finally on June 22 reached normal and remained there. The patient was discharged June 25, 1942, at which time he had begun to gain some weight from his low of 96 pounds.

On August 3, 1942, he returned to the hospital for examination. The white blood count was 4,250, the red blood count 2,440,000, hemoglobin 62 per cent, and the urinalysis showed the same trace of albumin and a few granular and hyaline casts. The patient had gained a great deal of weight and his appetite was much better. The patient was given 500 cubic centimeters of blood in 500 cubic centimeters of normal saline solution and was sent home in an ambulance.

Following this the convalescence was rapid. When the patient was seen in February, 1943, he reported that he had been entirely well since the previous November, and he had at that time reached his regular weight of 180 pounds and showed no effects of his long illness.

#### CONCLUSIONS

(1) This is a case of staphylococcic septicemia, the foci of which were the tonsils, although the history of tonsil involvement was entirely absent and found only by routine examination.

(2) Sulfathiazole therapy alone may not always be sufficient.

(3) The drainage and removal of foci are essential in the treatment, and this case illustrates that such can be undertaken even in what seems to be a poor surgical risk.

#### REFERENCES

1. Wolfe, A. G.: Hemolytic *Staphylococcus septicemia*. *Illinois Med. Jour.*, lxxx:457-462 (December) 1941.
2. Mendell, T. H.: *Staphylococcic septicemia*: review of 35 cases with 6 recoveries, 29 deaths and 16 autopsies. *Arch. Int. Med.*, lxiii:1068-1083 (June) 1939.
3. Rosenow, E. C., Jr., and Brown, A. E.: *Septicemia*: review of cases, 1934-1936 inclusive. *Proc. Staff Meet., Mayo Clin.*, xliii:89-93 (February 9) 1938.
4. Goldberg, S. L., and Bloomenthal, E. D.: *Staphylococcic septicemia*; treatment by chemotherapy and serotherapy. *Surgery*, ix:508-523 (April) 1941.
5. Stookey, P. F., and Scarpellino, L. A.: *Staphylococcus septicemia*. *South. Med. Jour.*, xxxii:173-179 (February) 1939.
6. Skinner, D., and Keefer, C. S.: Significance of bacteremia caused by *Staphylococcus aureus*; study of 122 cases and review of literature concerned with experimental infection in animals. *Arch. Int. Med.*, lxviii:851-875 (November) 1941.
7. Kolmer, John A.: Etiology, prophylaxis and treatment of surgical septicemia: discussion of principles involved. *Arch. Otolaryng.*, xxvi:59-65 (July) 1937.
8. MacNeal, W. J., Frisbee, F. C., and McRae, M. A.: Criteria for diagnosis of staphylococcemia. *Am. Jour. Clin. Path.*, xi:643-652 (August) 1941.
9. Kleiger, B., and Blair, J. E.: Correlation between clinical and experimental findings in cases showing invasion of blood stream by *Staphylococci*. *Surg., Gynec. and Obst.*, lxxi:770-777 (December) 1940.
10. Mitchell, O. W. H., and Chapman, O. D.: *Staphylococcus aureus septicemia*. *New York State Jour. Med.*, xl:1308-1311 (September 1) 1940.
11. Price, C. W. R.: Retroperitoneal hemorrhage from angioma of kidney. *Brit. Med. Jour.*, ii:831 (December 14) 1940.
12. Filler, W.: Puerperal sepsis due to *Staphylococcus aureus* treated successfully with sulfamethyl thiazol. *Am. Jour. Obst. & Gynec.*, xli:145-150 (January) 1941.
13. LeCocq, J. F., and LeCocq, E.: Use of Neoarsphenamine in treatment of acute *Staphylococcus aureus septicemia* and osteomyelitis. *Jour. Bone and Joint Surg.*, xxiii:596-597 (July) 1941.
14. Lyons, C.: Bacteriemic staphylococcal infection. *Surg., Gynec. and Obst.*, lxxiv:41-46 (January) 1942.
15. Hamilton, J. W., and Price, L. W.: Unusual case of staphylococcal pyaemia. *Glasgow Med. Jour.*, cxix:33-40 (August) 1941.

## SHOCKLESS SURGERY WITH REFRIGERATION ANESTHESIA\*

LEONARD C. HALLENDORF, M.D., and  
EDWIN B. WINNETT, M.D., Des Moines

Only a few years ago, and even today, many surgeons would hesitate to operate on elderly, poor-risk patients with gangrene of the extremities, because of the high mortality rate involved in this type of surgery. Although radical surgery was the only hope for cure, the mortality rate was often as high as eighty per cent. The thought of having an operation was so demoralizing to the patient of advanced age that this in itself constituted a major factor in the production of a poor prognosis. Today, however, these patients can take new hope for a cure because of refrigeration anesthesia. No longer will the debilitated, diabetic patient with gangrene need to dread an operation which may take his life because of shock, infection, pneumonia, or other postoperative complications. No longer will the surgeon be reluctant to operate on these patients because of the former, inevitably poor results.

Among the men who have made this possible

\*From the Departments of Medicine and Surgery, Iowa Methodist Hospital and Broadlawn General Hospital, Des Moines, Iowa.



are Allen and Crossman,<sup>1 and 2</sup> who have studied refrigerated tissues extensively and who have carried out actual operative technics to show that their work is practical. Their results have been remarkable. More recently, Mock and Mock, Jr.,<sup>3</sup> have carried on the work, again showing definitely the value of refrigeration anesthesia, not only in actual surgery but also in retarding the gangrenous or infectious process by continuous cooling of the involved part for several days until that process has abated and the patient is in good preoperative condition.

We are reporting five unselected cases of amputations done with refrigeration anesthesia. Our technic was that outlined by Crossman, Allen, and associates,<sup>4</sup> and similar to that later used by Mock and Mock, Jr. Essentially, it is: The area to which the tourniquet will be applied is chilled for thirty minutes to an hour, followed by elevation of the foot and application of the tourniquet. Then the entire extremity is packed in ice for two and one-half hours for a low-thigh amputation. The operation is then done using nylon or silk ligatures and sutures. Ice bags are kept on the stump for analgesia for two days after the operation, and the sutures are removed on the fourteenth postoperative day. Because there was no extensive infection or spreading gangrene in our patients, we felt that no preoperative period of chilling for several days was necessary; nevertheless, we see the great value of such a procedure.

#### CASE REPORTS

Case 1. The patient, C. K., a man seventy-seven years of age, was admitted to Broadlawns Hospital January 7, 1943, with a diagnosis of cerebral accident, dehydration, and senility. His general health was very poor at this time and the prognosis was unfavorable. His condition improved and he went home. Shortly after this he suffered sudden, severe, sharp pain in his right foot, followed by continuous pain, coldness, and the appearance of a reddish-blue color of the foot. He was readmitted with a diagnosis of peripheral arterial embolism and was discharged several days later.

The patient returned again January 30, 1943, with definite gangrene of the foot. Refrigeration anesthesia with a tourniquet was carried out for two and one-half hours. Preoperative medication consisted of prophylactic gas and tetanus antiserum, 100 milligrams ascorbic acid, and phenobarbital, 1½ grains. Then a low-thigh amputation was done without additional anesthesia. The patient was rather apprehensive, however, and experienced some pain, especially when the sciatic nerve was cut, and morphine sulfate, ¼ grain, was given. The postoperative period was fairly

uneventful, the patient having little pain with ice bags on the stump. No shock was present and the patient continued his regular diet as if no operation had been performed. The silk skin sutures were removed fourteen days postoperatively, and the stump was well healed. Because of an anemia present before his admission to the hospital, the patient was also given 500 cubic centimeters of blood. The patient was discharged well and in better general health thirty-two days after admission.

Pathologic examination of the extremity showed embolism and thrombosis of the dorsalis pedis artery with gangrene of all five toes, and grade 4 arteriosclerosis.

Case 2. The patient, F. R., a man seventy-four years of age, who had had generalized arteriosclerosis and hypertensive heart disease with a previous cerebral accident, entered Broadlawns Hospital with a history of severe pain in his right leg which had been present for approximately six months. The foot was cold at night, and two months prior to his admission several ulcers appeared over the first and fifth metatarsal bones. Following that he had been unable to walk and had had severe pain. The general condition of the patient was poor. He was somewhat irrational and had trouble swallowing his food. Amputation was thought advisable and a low-thigh amputation was done after tourniquet and refrigeration anesthesia for two and one-half hours. Preoperative medication consisted of nembutal, 1½ grains; morphine, ½ grain; and scopolamine, 1/200 grain. The patient slept throughout the entire operation. Large doses of thiamin chloride and ascorbic acid were given before and after surgery. Prophylactic gas and tetanus antiserum were also given. Because of the patient's anemia and poor condition, 500 cubic centimeters of blood were given immediately after surgery. The patient had no shock and very little pain, but he had difficulty in swallowing his food. Intravenous and subcutaneous nourishment was given and the patient's condition became worse. On his second postoperative day, left hemiplegia and severe dysphagia were noted. The patient's condition continued to grow worse and he died on the third postoperative day.

Autopsy showed a thrombosis of the right anterior cerebral artery, and evidence of old cerebral vascular process, but hemorrhage and softening were not evident. Dissection of the recently operated stump showed no infection, and evidence of good circulation and healing was present. It was felt that the cerebral thrombosis was the cause of death, and whether or not it was merely coincidental was not known.

Case 3. The patient, M. J., a woman seventy-

five years of age, who had had diabetes mellitus for four years, was admitted to Broadlawns Hospital December 7, 1942, with cellulitis and ulceration of the toes of the left foot. Her diabetes was somewhat difficult to control, and after approximately two months of constant treatment with no results, it was felt that the toes were gangrenous and should be removed. Because of the possible subcutaneous spread of the pathology up the leg, low-thigh amputation was thought advisable. This was done February 17, 1943, in the usual manner after two and one-half hours of tourniquet and refrigeration anesthesia. Preoperatively, the patient received prophylactic gas and tetanus antiserum; 100 milligrams ascorbic acid daily; nembutal,  $1\frac{1}{2}$  grains; morphine sulfate,  $\frac{1}{8}$  grain; and scopolamine,  $1/200$  grain. The patient experienced no pain during operation and had no post-operative pain or shock. She had her regular diabetic diet and missed no meals. Some difficulty was encountered in controlling her diabetes postoperatively. Ascorbic acid and thiamin chloride daily were continued postoperatively and after an uneventful convalescence with the diabetes in good control, the silk sutures were removed on the fourteenth postoperative day. The wound was well healed with good color. The patient returned in diabetic coma August 3, 1943, approximately five months after the amputation, and died without responding to treatment. At this time the stump was well healed and in excellent condition.

Case 4. The patient, Mrs. J. B., a woman eighty-eight years of age and a diabetic patient for approximately twenty-two years, developed a painful ulcer on the dorsum of her right foot which had not responded to treatment and had grown progressively worse for two months prior to the time she was admitted to Iowa Methodist Hospital on August 29, 1943. The patient's diabetes was regulated and a low-thigh amputation was done in the usual manner with refrigeration anesthesia, using a tourniquet and nylon sutures. Preoperatively, the patient received morphine sulfate,  $\frac{1}{8}$  grain; the diet and insulin administration was as usual. In this case, however, adequate refrigeration was not obtained, the patient having been exposed to the ice for only one and one-half hours. There was good skin anesthesia, but a small amount of supplementary gas anesthesia had to be given for deeper tissue pain. Postoperatively, the patient needed several doses of morphine. Shock was absent, however, and she missed no meals; her diabetes remained under control. The skin clips were removed on the fourteenth postoperative day; the healing was good; and the patient was sent home well.

Pathologic examination of the extremity showed

a deep 7 centimeter ulcer with edema on the dorsum of the foot, grade 4 arteriosclerosis, and gangrene.

Case 5. The patient, C. B., a man sixty years of age who had been a diabetic patient for fifteen years, had had gangrene of the fourth and fifth toes of the right foot. The toes had been amputated, but the gangrenous process progressed so that amputation of the extremity was thought advisable. Some edema and cellulitis were present and the patient had a temperature of 100.2 degrees at the time of admission to Iowa Methodist Hospital on September 13, 1943. Preoperatively, the patient received prophylactic gas and tetanus antiserum; nembutal,  $1\frac{1}{2}$  grains; morphine sulfate,  $1/6$  grain; and after approximately three hours of tourniquet application and refrigeration anesthesia, a low-thigh amputation was done. The patient slept during the entire operation and apparently experienced no stimulation from surgery. Postoperatively, he had no shock or pain and his diet was regular as before. His diabetes, which was uncontrolled before admission, was regulated satisfactorily. After an uneventful convalescence, the clips were removed on the fourteenth postoperative day and the patient was sent home well.

Pathologic examination showed grade 4 arteriosclerosis and gangrene.

#### SUMMARY

We have presented five cases of amputation with refrigeration anesthesia and for the most part they were very successful. One death occurred, which was caused by cerebral thrombosis that was probably coincidental and not related to the surgery. We have demonstrated to our satisfaction that surgery with refrigeration anesthesia is an effective method in treating gangrene of the extremities in certain elderly, emaciated, poor-risk patients.

#### REFERENCES

1. Allen, F. M.: Experiments concerning ligation and refrigeration in relation to local intoxication and infection. *Surg., Gynec. and Obst.*, lxxviii:1047-1051 (June) 1939.
2. Crossman, L. W., Ruggiero, W. F., Hurley, V., and Allen, F. M.: Reduced temperatures in surgery; amputations for peripheral vascular disease. *Arch. Surg.*, xlv:139-156 (January) 1942.
3. Mock, H. E., and Mock, H. E., Jr.: Refrigeration anesthesia in amputations. *Jour. Am. Med. Assn.*, cxxiii:13-17 (September 4) 1943.
4. Crossman, L. W., Allen, F. M., Hurley, V., Ruggiero, W. F., and Warden, C. E.: Refrigeration anesthesia. *Anesth. and Analg.*, xxi:241-254 (September-October) 1942.

#### THE AMERICAN BOARD OF OPHTHALMOLOGY

Effective January 1, 1944, the address of the Executive Office of the American Board of Ophthalmology will be P. O. Box 1940, Portland 2, Maine. All Board correspondence should be sent to this address.

The 1944 examinations will be held in New York City June 3 and 4 and in Chicago October 5, 6 and 7.



## THE FINLEY HOSPITAL CLINICO-PATHOLOGIC CONFERENCES

### BENIGN GASTRIC TUMOR

LIEUTENANT COMMANDER DONOVAN F. WARD,  
M.C., U.S.N.R.

Benign gastric tumors are relatively rare and in elderly patients may be mistaken for cancer. At times, in consideration of the age of the patient and the probable extent of the lesion as indicated by roentgenograms, operation may seem contraindicated and the patient loses his one chance of relief if a malignant tumor were operable or of cure if a suspected malignancy proved to be benign. In other words, exploratory laparotomy is often justified in these cases in spite of physical or x-ray findings, provided the condition of the patient warrants. In the following case the pre-operative diagnosis was carcinoma of the stomach which was considered operable. Fortunately it proved to be a benign tumor and cure resulted.

#### CASE REPORT

*Chief Complaint:* The patient, a white man seventy-three years of age, was admitted to the Finley Hospital May 5, 1939, with a complaint of "indigestion and nausea of six months' duration."

*Family History:* Negative for cancer, diabetes, or tuberculosis.

*Past History:* Thirty years prior to the time of his admission to the hospital the patient was kicked in the abdomen; after a few days of soreness this injury never bothered him. Otherwise, he had enjoyed good health until the onset of his present illness.

*Present Illness:* Six months before admission the patient began to notice that after a meal he had a distressed feeling and some nausea. This was especially noticeable after a full meal, which he usually desired but did not eat because of his fear of the symptoms. He stated that he felt best when his stomach was empty. He had never had coffee-ground vomitus or tarry stools. He had retained his appetite and had not noticed any loss of strength or weight.

*Physical Examination:* The patient was a well preserved, old gentleman who was cooperative and did not seem extremely ill. The head examination was negative. The pupils were equal in size, regular, and reacted to light and accommodation. The nose and ears were negative and pressure over the sinuses elicited no tenderness. The teeth were in poor condition and for the most part were represented by snags. The thyroid gland was barely palpable and seemed negative. No enlarged

lymph nodes were found in the supraclavicular space. The chest was symmetrical and expansion on each side was equal. On percussion it was slightly hyperresonant throughout. On auscultation the breath sounds were vesicular and no râles were heard anteriorly or posteriorly. On percussion the heart's left border was just outside the nipple line; the right border was just outside the right sternal border. The rate was 70 per minute; the apex beat was of good force and in the normal position. On auscultation the sounds were entirely normal except for slight accentuation of the aortic second sound. The blood pressure was 145/90. The abdomen was scaphoid. There was some tenderness in the epigastrium but no mass could be felt. The liver's edge was even with the right costal border and was smooth. Elsewhere in the abdomen there were no points of tenderness and no palpable masses. The testes were equal in size, smooth, and of normal consistency. There was no fluid in the scrotum. A rectal examination showed no hemorrhoids or internal masses and a normal sphincter. The prostate gland was slightly enlarged in the lateral lobes which were smooth and elastic. The median lobe was not hard. The skin was clean but had lost some of its turgor. The skeletal system was negative. The lymph nodes were not enlarged. All the major reflexes were normal.

*Laboratory Examination:* The blood examination revealed a white blood count of 7,200, red blood count 4,996,000, and hemoglobin, 72 Sahli units; the differential count was: polys, 69; lymphocytes, 27; eosinophils, 2; basophils, 0; and monocytes, 2. The red blood cells seemed normal except for slight achromia. The icterus index was 5. A Wassermann test was negative. The urinalysis showed a specific gravity of 1.023, albumin and sugar negative; the sediment showed 1 to 3 leukocytes per high power field. A gastric analysis showed no blood, 23 units of free hydrochloric acid; and 10 units of combined acid. Smears showed a few mouth organisms but no Boas-Oppler bacilli. Digestion seemed normal.

*X-Ray Examination:* X-ray examination of the stomach and duodenum showed a constant, irregular filling defect with ulceration along the lesser curvature and extending approximately to the region of the incisura angularis (Fig. 1). The appearance was characteristic of carcinoma. The extent of involvement indicated the lesion to be operable.

There was no retention in the stomach at six hours. The chest was grossly negative on fluoroscopy.

*Conclusion:* Carcinoma of the stomach.

*Course in Hospital:* In addition to bed rest and



Fig. 1. Roentgenogram showing defect on lesser curvature of the stomach.

forced fluids by mouth, the patient's fluid intake was supplemented for three days with 1,000 cubic centimeters of physiologic salt solution with 2.5 per cent glucose. On the following day he was prepared for operation, which was performed four days after admission.

*Operative Notes:* An upper median incision was used and the stomach isolated. A hard, indurated mass, 4.5 centimeters in diameter, was found 2.5 centimeters above the pylorus on the lesser curvature. It had the appearance and feeling of carcinoma. There was no evidence of lymphatic or liver involvement and a resection including 3.25 centimeters of the duodenum and 5 centimeters of stomach was performed. The upper end of the stomach was closed and the duodenum anastomosed to the greater curvature of the stomach, and the wound was closed without drainage. The patient withstood the operation in good condition.

*Pathologic Report:* Grossly, the specimen was a resected portion of the duodenum and pyloric portion of the stomach 9 centimeters in length. The mucosa laid in smooth folds but a hard mass could be felt just beneath. This was 4.5 centimeters in diameter, appeared encapsulated, and apparently arose in the submucosa.

Microscopically, the sections showed a thin connective tissue capsule with the gastric mucosa over one surface and the coats of the stomach on the others. The mass was entirely composed of interlacing whirls of fully differentiated connective tissue cells with a scattering of round cells throughout. Several sections showed no evidence of malignant change.

*Anatomic Diagnosis:* Submucous fibroma of the stomach.

*Postoperative Course:* The immediate postoperative course was normal. The fluid balance was maintained by the intravenous administration of Ringer's solution and 2.5 per cent glucose in a tenth normal saline solution. Nasal suction was instituted on the second day and some changed blood was removed from the stomach. On the third postoperative day nasal suction was discontinued and the patient began to take water by mouth. Three days later he began to vomit and nasal suction was restarted with the removal of considerable mucus and bile from the stomach with gradual relief. After three days it was discontinued and he made a progressive and uneventful recovery. He was discharged in good condition on the twenty-first day after admission (eighteen days after operation). Subsequently, the patient's condition continued to be favorable; and four and one-half years after the surgery he is in excellent condition, having gained forty pounds in weight.

#### GENERAL DISCUSSION

There are marked differences in the incidence of benign gastric tumors as reported in necropsy and clinical material. Finesilver<sup>1</sup> reported six cases at the New York Hospital between 1932 and 1940. One instance of benign gastric tumor was encountered for each 7,200 roentgenologic examinations of the stomach at that hospital. Eusterman and Senty<sup>2</sup> found 27 benign gastric tumors in patients operated upon at the Mayo Clinic from 1907 to 1921. This was 1.3 per cent of the gastric resections for tumor. Dudley, Miscall and Morse<sup>3 and 4</sup> reviewed the statistics at Bellevue Hospital, New York, for a period of three years and seven months. Of 76,077 surgical and medical patients admitted, 456 were operated upon for gastric tumors; 450 were malignant neoplasms and 6 were benign. Thus 1.3 per cent of the gastric tumors with symptoms or signs sufficient to indicate operation were benign. It is significant that in two of our great clinics, the percentage of benign gastric tumors was identical. However, according to Zollinger,<sup>5</sup> Minnes and Geschickter state that 5 per cent of gastric tumors are benign.

Contrasted with the foregoing figures are the necropsy statistics which indicate a far greater incidence. Thus Rigler and Ericksen,<sup>6</sup> of the University of Minnesota, in 6,242 necropsies found that 26.2 per cent of all gastric tumors were benign. Dudley and associates reported that in a series of 4,413 Bellevue necropsies in a five year period (1930-1934) thirty-two (22 per cent) benign gastric tumors were found and 113 (78 per



cent) were malignant. In the entire series of 4,413 necropsies there were 0.72 per cent benign stomach tumors.

Dudley classified the benign stomach tumors encountered from 1930 through 1934 as follows:

Type of Tumor	Number of Cases
Polyp .....	14
Fibroma .....	8
Papilloma .....	4
Leiomyoma .....	2
Fibromyoma .....	2
Adenoma .....	2

He also classified the 76 benign tumors encountered in 21,026 necropsies performed between June 1, 1915, and June 1, 1938, as follows:

Type of Tumor	No. of Cases	Percentage
Mucosal polyp and papilloma .....	39	51.3
Myomata .....	15	19.7
Fibroma .....	12	15.8
Adenoma .....	8	10.5
Fibroadenoma .....	1	1.35
Fibrolipoma .....	1	1.35

The discrepancy between clinical and necropsy statistics is explained by the fact that most benign gastric tumors give few or no symptoms and may be completely overlooked during life. Of course, in addition there are cases of missed or incorrect diagnoses in patients who present themselves, and Dudley refers to Rieniet's observation made at the Mayo Clinic. Diligent search for gastric leiomyomata in 200 consecutive necropsies revealed 16 per cent with such benign tumors, frequently very small and asymptomatic but still very definite, and 6 per cent were malignant. This would seem to indicate that benign gastric lesions are often overlooked both by the clinician and the pathologist.

As a rule the benign stomach tumors, occurring in any portion of the stomach as they do, give no distinctive symptoms. They do have predilection for the region of the pylorus and may interfere with the motility of the stomach and may cause intermittent or persistent obstruction. If the tumor causes ulceration of the mucosa, bleeding with secondary anemia is likely and symptoms of ulcer may be outstanding. Eusterman and Balfour<sup>7</sup> state that 10 per cent have pyloric obstruction and that the clinical features which may give a clue as to the correct diagnosis are as follows: In benign tumors the symptoms of dyspepsia are absent or mild, the patient's general health is affected but little, and the tumors usually occur in younger age groups than malignant gastric tumors.

The x-ray diagnosis is accurate and Finesilver has listed the following traits as peculiar to benign tumors:

1. They produce a filling defect which is punched out and circumscribed.
2. The filling defect is usually over the gastric walls leaving the curvature regular and pliant.
3. They cause little or no disturbance in peristalsis and retention is slight except when the lesion is at or near the pylorus.

4. They do not reveal a niche.

5. They are rarely large enough to be palpated.

Schindler, Sandweiss and Mintz<sup>8</sup> have recently advocated the possibility of making the diagnosis by gastroscopic means, and undoubtedly in the hands of an expert this procedure should increase the percentage of accurate diagnoses. However, the exact nature of some of these lesions will be in doubt until exploratory operation is done, and a biopsy will usually be necessary to get an exact diagnosis. The important thing is to keep the benign tumors in mind, and if this is done more will be diagnosed clinically. According to Dudley and associates, 13.1 per cent of all necropsy cases showed malignant degeneration of benign tumors. This is especially apt to occur in polyposis, in which Pearl and Brunn<sup>9</sup> have reported nineteen of thirty-seven cases (51 per cent) as showing malignant changes. It is also well known that other types of benign stomach tumors may undergo malignant change.<sup>10</sup> and <sup>11</sup> Therefore, in their treatment simple excision may be adequate if the lesion is proved to be benign by histologic examination. If there is any indication of malignancy, however, more radical surgery is demanded.

#### REFERENCES

1. Finesilver, Edward M.: Benign tumors of stomach. *Surg.*, xii:216-235 (August) 1942.
2. Eusterman, G. B., and Senty, E. G.: Benign tumor of stomach. *Surg., Gynec. & Obst.*, xxxiv:5-15 (January) 1922.
3. Dudley, Gueford S., Miscall, Lawrence, and Morse, Stanley F.: Benign tumors of stomach. *Rev. Gastroenterol.*, x:31-44 (January-February) 1943.
4. Dudley, Gueford S., Miscall, Lawrence, and Morse, Stanley F.: Benign tumors of stomach. *Arch. Surg.*, xlv:702-726 (November) 1942.
5. Zollinger, Robert: Surgical treatment of tumors of stomach. *Surgery*, vii:619-643 (April) 1940.
6. Rigler, L. G., and Erickson, L. G.: Benign tumors of stomach; observations on their incidence and malignant degeneration. *Radiology*, xxvi:6-15 (January) 1936.
7. Eusterman, G. B., and Balfour, D. C.: *The Stomach and Duodenum*. W. B. Saunders Company, Philadelphia, 1935.
8. Schindler, Rudolph, Sandweiss, David J., and Mintz, I. L.: Benign submucosal tumors of stomach; gastroscopic study. *Am. Jour. Digest. Dis.*, ix:289-292 (September) 1942.
9. Pearl, Felix L., and Brunn, Harold: Multiple gastric polyposis; supplementary report of 41 cases, including 3 new personal cases. *Surg., Gynec. & Obst.*, lxxvi:257-281 (March) 1943.
10. Lemon, Robert G., and Broders, Albert C.: Clinical and pathological study of leiomyosarcoma, hemangioendothelioma or angiosarcoma, and fibrosarcoma of the stomach. *Surg., Gynec. & Obst.*, lxxiv:671-680 (March) 1942.
11. Lahey, Frank H., and Colcock, Bentley P.: Diagnosis and surgical management of leiomyomata and leiomyosarcomata of stomach. *Ann Surg.*, cxii:671-686 (October) 1940.

#### MIDWINTER POSTGRADUATE CONFERENCE

On page xxii of this issue is carried an advertisement of a Midwinter Postgraduate Conference to be held in Chicago at the Stevens Hotel, March 14, 15 and 16, sponsored by the Chicago Medical Society.

Highlights of the event will be announced later. For information address the Secretary, Chicago Medical Society, 30 North Michigan Avenue, Chicago 2, Illinois.



Pneumonia Mortality and Morbidity in Iowa

MORTALITY RECORDS

Recent years have witnessed a remarkable decrease in the number of deaths from lobar pneumonia and bronchopneumonia in Iowa.

Figures in Table I were obtained from the Department's Division of Vital Statistics, where records of deaths due to all causes are tabulated from the death certificates as completed by attending physicians. The table includes fatalities from lobar pneumonia, bronchopneumonia, unspecified pneumonia and all forms of the disease, for the ten-year period, 1934-1942, and the first eight months of 1943.

TABLE I

Pneumonia Mortality in Iowa 1934-1943 (1st 8 mos.)				
Year	Lobar Pneumonia	Broncho-pneumonia	Pneumonia (unspecified)	Pneumonia (all forms)
1934.....	1,020	924	21	1,965
1935.....	1,078	835	16	1,929
1936.....	1,170	909	21	2,100
1937.....	962	769	14	1,745
1938.....	882	739	26	1,647
1939.....	700	649	31	1,380
1940.....	656	616	42	1,314
1941.....	493	541	48	1,082
1942.....	453	467	42	962
1943..... (1st 8 mos.)	279	325	30	634

It is probable that the steady decrease in pneumonia deaths beginning about 1939 is attributable chiefly to use of the sulfonamide drugs and to type specific antipneumococcic serum. The five-year period, 1934 to 1938, may be regarded as the period antedating the advent of chemotherapy and thus serves as a basis for comparison with the mortality experience of the past few years.

During the years 1934 to 1938, the average annual number of deaths from lobar pneumonia was 1,022; compared with this total, the 453 deaths caused by lobar pneumonia in 1942 represent a reduction in the mortality rate of 56 per cent. Similarly, annual deaths from bronchopneumonia averaged 835 for the same five-year period, and the 467 deaths in 1942 represent a decrease of 44 per cent. The greater decrease in mortality from lobar pneumonia as compared with

bronchopneumonia is reflected in the figures (see Table I), which show that in 1941, for the first time in contrast with previous years, fatalities from bronchopneumonia (541) outnumbered those from lobar pneumonia (493).

For all forms of pneumonia, the 962 deaths in 1942 are fewer by 915 than the total of 1,877, the average for 1934 to 1938, a decrease of 49 per cent. The accompanying bar diagram presents in graphic manner the average annual total of pneumonia deaths for the years preceding chemoserotherapy and the fatalities for each of the intervening years, including the first eight months of 1943.

PNEUMONIA MORBIDITY

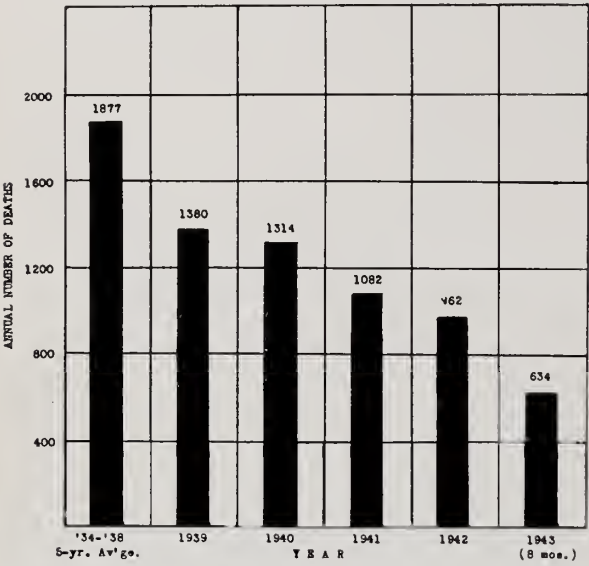
Table II shows the number of cases of pneumonia as officially reported to the State Department of Health for the years 1935 to 1943 (through December 21).

TABLE II

Reporting of Pneumonia in Iowa	
Year	Number of Cases
1935.....	278
1936.....	202
1937.....	542
1938.....	588
1939.....	1,346
1940.....	2,005
1941.....	1,680
1942.....	1,287
1943..... (through Dec. 21)	559

The improvement in reporting, particularly in 1939 and 1940, was due in large part to increased interest in bacteriologic diagnosis, to typing of pneumococci by the Neufeld method, and to co-operation by laboratory workers in the many hospitals of the state in notifying the Department of the occurrence of positive laboratory findings. Decrease in the number of reported cases since 1940 has probably resulted from several factors, such as (1) reliance on sulfatherapy with lessening of dependence on the laboratory; (2) difficulty in securing typing serum in adequate amount for civilian use because of needs of the armed forces;

**PNEUMONIA DEATHS (All Forms) IN IOWA**  
Average Annual Deaths for the 5-Year Period 1934-1938  
Compared with Mortality Totals for the Years 1939-1943  
(First Eight Months)



and (3) enlistment of physicians in the military services of our country.

**REPORTING OF ACUTE LOBAR PNEUMONIA**

Under date of December 9, 1943, the Commissioner directed to Superintendents and Staff physicians of many of the hospitals in Iowa, a letter which reads in part as follows:

"It is desirable that official notification of cases of acute lobar pneumonia be as complete as possible. To this end, the Iowa State Department of Health is dependent upon interest and co-operation of attending physicians, and of those

who have charge of the records of patients who are in the hospital.

"The Department appreciates the fine arrangement in effect during recent years, whereby hospital laboratory workers have mailed pneumonia report cards and monthly reports to the Department, including the type of pneumococcus as revealed in sputum or blood culture by the Neufeld method. The slogan of the Advisory Committee on Pneumonia Control, 'Reduce pneumonia mortality by accurate bacteriologic diagnosis and modern therapy,' continues to have meaning, especially in the determination of pneumonia of Types I, II, III and of other types which may be severe or of frequent occurrence."

The letter requests that all cases of acute lobar pneumonia be notified by means of pneumonia report cards at the time patients are under treatment in the hospital. Report cards may be mailed to the District Health Office, when addressed to that office, or to the State Department of Health.

Physicians who attend patients with acute lobar pneumonia in the home are likewise requested to report such cases to the District Health Office or to the State Department of Health.

**BLOOD CULTURE OUTFITS**

**SERUM FOR DIAGNOSIS AND THERAPY**

Prompt attention will be given to requests received by the State Department of Health to supply:

1. Blood culture outfits for patients with bacteremia.
2. Diagnostic antipneumococcic serum for typing.
3. Type specific therapeutic serum.

**PREVALENCE OF DISEASE**

Disease	Nov. '43	Oct. '43	Nov. '42	Most Cases Reported From
Diphtheria .....	14	14	14	Cerro Gordo, Woodbury
Scarlet Fever .....	252	245	203	For the State
Typhoid Fever .....	8	6	7	Black Hawk, Bremer, Des Moines
Smallpox .....	1	1	1	Hamilton
Measles .....	140	35	135	Allamakee, Dallas, Marshall
Whooping Cough .....	148	105	58	For the State
Brucellosis .....	21	51	27	For the State
Chickenpox .....	347	119	271	For the State
German Measles .....	36	1	11	Dallas
Influenza .....	5	0	10	Mitchell
Malaria .....	1	3	0	Plymouth
Mumps .....	48	48	113	For the State
Pneumonia .....	16	26	38	Clinton, Linn
Poliomyelitis .....	8	44	6	Cerro Gordo, Guthrie, Palo Alto
Tuberculosis .....	33	33	29	For the State



# The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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Vol. XXXIV JANUARY, 1944 No. 1

## LET'S GO—1944!

Once again that time has arrived when all mankind pauses briefly in its customary routine to pay homage to such ideals as peace and good will. The JOURNAL is happy indeed to take part in this age-old custom and to extend to its readers its felicitations and its best wishes for the year to come. While the dark clouds of war still hang depressingly over all our thoughts and actions, nevertheless there has justifiably developed a growing spirit of optimism among us that victory and peace, even if many difficult months away, are yet assured. A year ago there was no such assurance. But thanks to the might of forces allied on the side of right and justice, hope is kindled in our hearts that by another holiday season "peace on earth" may be an actuality.

It is fitting, too, that on this occasion we should pause especially to extend our greetings to those of our members in military service, both at home and abroad, and to their families. Let them be assured that we appreciate fully what separation means to them in the days when music, laughter, and celebration are supposed to be in the air, and when one's own fireside in his own home among his friends is his rightful place. Let our prayers and our first wishes be, therefore, that another holiday season may find all our boys returned from the foxholes, from the jungles, from the malarial swamps, and from the shark infested seas on the other side of the world.

As we reflect on the events of the past year, certain things stand out clearly in our minds. As a medical profession we have successfully discharged our obligation and faithfully met our responsibilities, both on the military and civilian fronts. Iowa has supplied its full quota of physicians to the armed forces. On this day some of them are in

enemy prison camps, some are on the fighting lines risking their lives to gunfire, while others are performing equally meritorious service in hospitals, on board ship, or in the air; but wherever they are, to a man, they are serving their country, their state, their profession, and their fellowmen with unswerving loyalty, courage, and skill. We're proud of them and we want them to know it.

And none the less should our plaudits be extended to those of our profession whose rôle fate has decreed should be assigned to the less glamorous but equally exacting task of carrying on at home. Men not so young as they once were have cheerfully, willingly, and without fanfare met the challenge of double and triple demands upon their time and energy to attend the needs of the civilian population. That these needs in every hamlet and village in Iowa have been fully met is a tribute to the patriotism and courage of this portion of our profession which we believe few will deny richly deserves recognition along with those who serve in uniforms. Truly may it be said to both groups, "Well done, good and faithful servants."

As we embark upon the year ahead, we are cognizant of the many perplexing problems which beset us. Among physicians the Wagner-Murray-Dingell Bill with its associated implications looms large in our thinking. That such a monstrosity as this should be saddled upon the American people and upon the medical profession while a third of its members are absent in military service is unthinkable. Yet the threat exists. Physicians recognize as well as others that changes in the socioeconomic aspects of medical service to meet changes in social needs are essential, but they believe these interests can be better met in ways which do not include government direction and domination. All the profession asks is to be let alone while it works out suitable policies and programs.

But come what may, we are sure the rank and file of the doctors of America are entering into 1944 with renewed enthusiasm based upon tasks well done in the past, and with confidence in their ability to meet situations, no matter how difficult, in the future.

## A FURTHER WORD ON THE EMIC PROGRAM

Someone (might have been Mark Twain) once made a remark to the effect that "lots of folks talk about the weather, but nobody does anything about it." This seems to sum up about as well as can be done the present status of the Emergency Maternal and Infant Care Program. Meetings by groups of states, meetings within states, meetings of national groups, and even hearings before the Children's Bureau have been held. Resolutions



upon resolutions have been drawn up. But still nothing has been done. The administrative restrictions imposed by the Children's Bureau, to which so many physicians object, are still in force. And what's more, there doesn't seem to be any immediate prospect of their being changed, at least not before another appropriation by Congress is made. Whether any modification in administrative policies can be brought about will depend upon the approach made to Congressmen in the meantime. What seems to be needed more than anything else is the emergence of a medical leadership behind which all groups can unite and which can make its voice heard in Washington.

Physicians are rightfully hesitant about taking any action which will interfere in any way with the prosecution of the war. They are thoroughly in sympathy with the idea of providing the best quality of medical care to all the families of servicemen who need it, even to the extent of furnishing that care gratis if necessary. But they believe they have been taken advantage of and put on a spot in this EMIC Program. They feel all the cooperating flows in one direction only; and they resent that they, who are actually doing the work, have not been permitted to have some part in the setting-up of administrative policies. In retrospect it does seem reasonable to suppose that much of the present ill feeling might have been prevented if, some months back when plans were being formulated, representatives of obstetricians and pediatricians together with perhaps presidents of state medical societies had been called together to consider the whole matter. The explanations which these emissaries could have brought back to their respective state organizations would have, we believe, changed the whole complexion of the present situation and for the better.

But no such evidence of a cooperative attitude has been shown. On the contrary physicians have simply been told by a governmental agency what they may charge for certain of their medical services, and a clause has been inserted into the application forms which takes away the right of both the patient and the physician to make other financial arrangements even if the patient may be able and wish to do so. We are of the opinion that it is not so much the low fees which have been proscribed for the physicians' services which is resented as it is this paternalistic action on the part of a governmental agency, which to the rank and file of doctors smacks too much of state medicine. With the Wagner Bill in the offing there are many who cannot escape the feeling that the EMIC Program is but a dress rehearsal for further and more extensive participation of government in the practice of medicine.

As we view the problem in its present scope, then, it appears to us that physicians will continue to cooperate in the program because they feel it to be their patriotic duty and because they want to do anything they can which will ease the mental strain on servicemen who are risking their lives on the battlefronts, but they will do so in none too happy a frame of mind over the dictatorial administrative restrictions imposed by the Children's Bureau. Furthermore, we believe they will make an effort to have their side of the argument fully presented to Congress before the next appropriation bill comes up for passage. And finally, they are going to look askance upon the possible relationship the experience gained by government officials in this program may have to any subsequent plans the government may be contemplating.

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#### PREVALENCE OF RICKETS BEYOND AGE OF INFANCY

One of the practical questions with which the physician is frequently confronted is whether or not vitamin D in some form or other should be administered to children beyond the age of infancy. Since clinical rickets is rarely recognized after the age of two, there is a tendency both among parents and physicians to feel that continuous administration of this vitamin is not necessary.

However, a study recently published by Follis et al<sup>1</sup> reveals the surprising fact that rickets was found in nearly half (46.5 per cent) of 230 children between two and fourteen years of age who died from various causes at the Harriet Lane Home in Baltimore and who were examined at autopsy for rickets. Sections of bone taken from the middle ribs were studied. Criteria for establishing the presence of rickets was based upon changes at the cartilage-shaft junction, such as defects of calcification and irregularities in invasion of the cartilage by blood vessels and upon abnormally thick borders of osteoid in the shaft. It was possible to recognize the rickets by roentgenograms in only five of these 230 children, a fact which clearly indicates the superiority of histologic examination of the bones over other methods in recognizing rickets.

Rickets in the children studied was found to be most prevalent in the third year of life (57 per cent). After the fourth year it remained at about 40 per cent. It was in an advanced stage in nearly 10 per cent of the cases discovered. Well developed rickets was commoner in negro children, but the total prevalence between white and colored was approximately equal. One question which

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1. Follis, R. H., Jr., Jackson, D., Eliot, M. M., and Park, E. A.: Prevalence of rickets in children between two and fourteen years of age. *Am. Jour. Dis. Child.*, lxxvi:1-11 (July) 1943.

immediately rises since the studies were made in children dying from either acute or chronic illnesses is whether the rachitic changes may not have been the direct result of the illness. The authors answer this by pointing out that 67 per cent of the children dying from acute illness showed rickets, as compared to 41 per cent dying from chronic illness. An acute illness was arbitrarily limited to one lasting less than fourteen days, a period too short for the histologic changes found to have occurred. Nor was it possible to establish any definite relationship between the occurrence of rickets and any particular disease with the possible exception of chronic lead poisoning. As one would expect, the greatest prevalence of rickets was found in the winter months and the lowest in the autumn after a season of exposure to the sun's rays.

The authors conclude that their studies strongly suggest that rickets is a frequent occurrence in healthy-appearing children; that they afford reason to prolong vitamin D administration at least through the fourteenth year; and that they especially indicate the necessity to suspect and to take the necessary measures to guard against rickets in sick children.

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#### NATIONAL CONFERENCE ON MEDICAL SERVICE

The eighteenth annual meeting of the National Conference on Medical Service will be held on February 13 in the Red Lacquer Room of the Palmer House in Chicago.

This conference is the only discussion meeting of its kind on the social and economic relationships of medicine, and it provides the one opportunity of the year for representatives of organized medicine from all parts of the country to get together for informal discussion of the grave issues confronting the profession today.

The conference is not in any sense an official body of organized medicine. But action initiated in its discussions last year was crystallized in the formation of the New Council on Medical Service and Public Relations by the House of Delegates of the American Medical Association in June. Its forum affords the rank and file of medicine an important opportunity for expression which may have far-reaching results for the future of medicine.

The program this year is not yet complete, but it is understood that it will stress the postwar problems and responsibilities of organized medicine which must provide not only for the orderly re-establishment of thousands of medical officers returning from military service, but must foster and guide a constructive national program for the improvement and better distribution of medical services to the American people.

The 1944 conference officers are W. L. Burnap, M.D., of Fergus Falls, Minnesota, President, and C. L. Palmer, M.D., of Pittsburgh, Secretary.

In accordance with an established precedent the meeting is held on the day before the Annual Congress on Medical Education and Licensure so that as many as possible can arrange to be present at both meetings. Every member of organized medicine is cordially invited to attend and every state association is especially urged to see that it is well represented.

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#### ANOTHER PLEA FOR OLD MEDICAL INSTRUMENTS

The following excerpts are from a letter received from Joseph Peter Hoguet, M.D., Medical Director of the Medical and Surgical Relief Committee of America:

"There is a critical need for medical and surgical supplies that may lie hidden and forgotten in your office: discarded or tarnished instruments . . . surplus drugs . . . vitamins . . . infant foods. Collected, packaged, sent to the Medical and Surgical Relief Committee, they can play a vital rôle in its program of medical relief for the armed and civilian forces of the United Nations.

"Surgical instruments and medicines are sought after by physicians and pharmacist's mates of our Navy . . . are hungrily snatched by the medical corps of our Allies. The work of war-zone hospitals and welfare agencies is too often crippled by the lack of medical supplies. Community nurseries in this country, refugee camps abroad cry out for vitamins and baby foods for their ill-nourished charges.

"To meet the demands that pour into headquarters, the Committee needs all types of instruments, especially clamps, scalpels, forceps, and all kinds of drugs from iodine to sulfa products. By contributing what you can spare, you will help speed another shipment of sorely-needed medical aid."

Send your contributions in care of the Iowa State Department of Health, 1027 Des Moines Street, Des Moines 19, Iowa.

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#### SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:05 p. m.

WSUI—Thursdays at 9:00 a. m.

January 5-6	Pneumonia	Glenn R. Johnson, M.D.
January 12-13	Public School Health—	Edward W. Anderson, M.D.
January 19-20	The Use of Vitamins—	Burr C. Boston, M.D.
January 26-27	Common Causes of Headache—	John C. Peart, M.D.



## A Message from Our President

With more than one-fourth of the doctors of Iowa in the armed forces of the nation and an increased demand during the year on the physicians on the home front—winding up with the unusual requirements of the current epidemic of influenza—it is difficult to evaluate all that has occurred in 1943.

We were concerned about the health of the older men who have been called upon for extra work, but the year has passed without too great a toll. This has been due mainly to the doctors conserving their strength and the consideration of the public in avoiding unnecessary night calls. Rationing has taken a great deal of the time of the busy physicians; however, by this time most people have learned to submit to regulation without using sickness as an excuse to make unreasonable requests. Industry in Iowa has not expanded sufficiently to make unusual calls on the doctors.

Selective Service has taken less time of civilian doctors in 1943 than it did in 1942. The "screening" at home with examination at the induction station, which began in January 1943, has saved the time of civilian physicians in needlessly making examinations which were duplicated at the induction station. I spent a day at the induction station and was very favorably impressed with the efficiency of the army physicians in rapidly evaluating a man's usefulness to the armed forces. Some mistakes are made, but civilian physicians can be helpful in giving Selective Service Boards any definite information they have concerning a registrant's physical or mental condition.

The year 1943 saw some startling developments in the field of medical economics. There has been agitation for many years regarding the ability of the public to receive and pay for adequate medical care, but nothing definite has been done although it was certain changes were to come. Briefly reviewing the chronology of events: In 1928 the Committee on the Cost of Medical Care began its investigation; in 1935 the Social Security Act was passed; in 1938 the Inter-Departmental Committee made its studies; in 1939, the Wagner National Health Act was introduced; in 1943 the Children's Bureau forced the Emergency Maternity and Infant Care Program on the medical profession, and the Wagner-Murray-Dingell Bill was introduced into Congress. Belatedly, the American Medical Association created a Council on Medical Service and Public Relations in 1943, and a committee was appointed in Iowa to cooperate with it.

What seems to us as one outstanding scientific achievement took place. The President's Meetings were conducted entirely by Iowa physicians, and the papers were all so well prepared that it does not seem necessary to go out of Iowa to get good programs.

Looking forward to 1944, it seems there will be increased demands on the physicians. The war is only well started and the tempo will be tremendously stepped up and become an "all-out" effort. More physicians will probably be needed for the armed forces. Food rationing may become more strict, and doctors may have to give more time to this program. The Wagner Bill surely will be up for consideration, at least in committee, and it is not adequate merely to fight this Bill. The time has come when we must give an answer to this question. We must satisfy the public on the possibility of receiving and paying for adequate medical care.

Plans for the state meeting to be held in Des Moines April 20 and 21 revolve around a program for the family doctor, something which will be of value to each of you in your daily work. Also, we have plans to entertain you so that you may have a good time as well as absorb something of value. We hope to see you all there.

Lee R. Woodward, M.D., President

# Federalization of the Practice of Medicine\*

WALTER L. BIERRING, M.D., Des Moines

During the past two decades there has appeared within the popular mind a new philosophy concerning the relation of society to medical care, based more or less on a new concept of the functions of government, the state's responsibility to the individual, the governmental control of social factors and agencies, and the federalization of professional activities.

In the evolution of this new concept, particularly with regard to the delivery of medical care for all the people, there has been a persistent effort to exert external pressure on the medical profession to accept plans for the federalized practice of medicine. These plans have been drafted by government bureaus or agencies with a singular disregard for the opinions of professional organizations most familiar with existing medical needs.

The social worker, the economist, and the statistician began to collect a mass of evidence on the increasing cost of medical care, which on the surface placed the larger blame on the practicing physician and existing methods of medical care. It was claimed that in spite of the marvelous advances in medical science, the people were not getting the services which they needed because, first, in many cases its cost was beyond their reach, and second, in many parts of the country it was not available.

To study this phase of the social problem the Committee on the Cost of Medical Care was organized in 1928. It consisted of fifty members, twenty-five of whom were physicians and three were dentists, who represented the fields of private practice, public health, medical institutions and special interests, the social sciences, and the general public. The chairman was Dr. Ray Lyman Wilbur, then president of Stanford University and later Secretary of the Interior in President Hoover's administration. The study was to continue five years and was to be supported by a number of Foundations, the total cost being over one million dollars. During these five years, twenty-six major fact-finding studies were completed by the nonmedical technical staff of the Committee. The results of these studies were expressed December 1, 1932, in the form of a majority and a minority report.

The principal recommendation contained in the majority report was "that the medical service be furnished largely by organized groups of physicians, dentists, nurses, pharmacists and other associated personnel, to be organized preferably around

a hospital for rendering complete home, office and hospital care." This was essentially a form of corporate or contract practice.

The minority group expressed its disapproval of that part of the majority report which referred to the corporate practice of medicine, financed through intermediary agencies, as being economically wasteful, inimical to a continued and sustained high quality of medical care, and unfair exploitation of the medical profession; it urged that governmental competition in the practice of medicine be discontinued and be restricted to the care of the indigent and those patients who can be cared for only in governmental institutions; finally, the minority report most strongly recommended that united efforts be made to restore the general practitioner to the central place in medical practice.

During the latter part of the five year period, the writer was approached to consider becoming public relations director to bring the results of the Committee's studies to the attention of the various professions and agencies interested, as well as the general public. In order to become more familiar with the character of the fact-finding studies, the writer spent the greater part of a week with the technical staff in Washington, here meeting for the first time several who were to loom large in later legislative efforts to federalize medical practice. The director of the studies, Harry H. Moore, Ph.D., had previously published a book on "American Medicine and the People's Health," which revealed his personal bias for insurance schemes and indeed for governmental practice. A day was then spent with the Executive Committee in New York City; and at the close the chairman asked for a decision and was somewhat surprised by the prompt answer, "I am sorry, sir, but I fail to see the doctor in this picture," to which he replied, "Why, Doctor, that is what we want you to do." The writer returned to Iowa without the appointment.

The next opportunity for the proponents of compulsory health insurance presented itself with the development of the Social Security Act, later enacted by Congress in 1935.

Early in 1934 Secretary Perkins, Chairman of President Roosevelt's Committee on Economic Security, appointed a Medical Advisory Board of eleven physicians, which included the writer, to advise the technical staff in its study of public health, medical care, and health insurance. After careful study the sections pertaining to maternal and child welfare and public health work were

\*Abstract of discussion presented before the Prairie Club, Des Moines, December 17, 1943.



approved. These were listed in the Social Security Act as Titles V and VI.

The technical staff associated with the Advisory Board then submitted a plan of compulsory health insurance on a national basis, which by comparison was very similar although somewhat less comprehensive than those incorporated in subsequent national health insurance proposals.

This is understandable, because several members of this technical staff had been connected with the Committee on the Cost of Medical Care, and were still functioning, having become even more influential than a decade ago. This plan of medical care was to be supported by insurance contributions from employer and employees, as well as from Federal and State grants, and supervised by the Social Security Board.

In support of this plan of compulsory health insurance frequent comparison was made with the Krankenkasse plan then operating in Germany and the panel system in Great Britain. Opinion submitted by prominent medical authorities in both countries clearly indicated that the quality of medical care rendered was distinctly inferior to that provided in this country.

After several months of discussion a small minority of the Medical Advisory Board led by Dr. Harvey Cushing and including the writer, finally succeeded in keeping any form of National Health insurance out of the Social Security Act which became effective August 14, 1935.

However, in Title VII of the Social Security Act which created the Social Security Board, one of its duties was defined: "To study and make recommendations as to the most effective methods of providing economic security through social insurance."

Equally significant was the action of the President, directly after the passage of the Social Security Act, in creating by executive order the Inter-Departmental Committee to coordinate health and welfare activities.

The committee comprised in its membership Miss Josephine Roche, Assistant Secretary of the Treasury, Chairman; Mr. A. J. Altmeyer, Chairman of the Social Security Board; the assistant secretaries of the Departments of Labor, Agriculture, and the Interior; Dr. Martha Eliot, Associate Chief of the Children's Bureau, two medical officers and one statistician from the United States Public Health Service, and I. S. Falk, Ph.D., of the Social Security Board. The latter had been a member of the technical staff of the old Committee on the Cost of Medical Care, and of the technical staff connected with the aforementioned Medical Advisory Board, and has since been prominently

associated with several federal proposals for national health insurance.

The committee undertook an extensive survey covering three years of the health activities of the Federal Government, and through one of its subcommittees, the Technical Committee on Medical Care, carried on a study of the health needs of the nation. This committee submitted a report of the completed survey to the President in February, 1938.

Before considering this report and the events which followed, it seems fitting to refer to another nationwide study on medical care published in 1937 by the American Foundation Studies in Government.

This study was the consensus of a large number of physicians concerning many aspects of medical care. Ten thousand physicians who had been in practice more than twenty years and a number of more recent graduates were asked to present their views.

The study was referred to as "expert testimony out of court" and constituted a review of the problem of medical care, as seen by leading physicians of this country, without drawing any definite conclusions. The one obvious feature of the final report was the common opinion: "It is unlikely that sickness insurance, either voluntary or compulsory, will answer the problem of medical care suitable for the people of the United States."

This phase of the study was further emphasized by Miss Esther Everett Lape, director of the studies, in the April, 1937, issue of *Atlantic Monthly*: "The medical man believes that compulsory insurance, with its stress upon more care in illness (as opposed to stress upon positive health) with its mass therapy, its regimentation both of doctors on the panel and of patients (in spite of devices to save the principle of the personal relation) subtly and continuously lowers the quality of medical care, the quality of the medical man, and the quality of the patient's conception of health."

As previously mentioned, the Inter-Departmental Committee transmitted to the President in February, 1938, a report of its results, and at the suggestion of the President a more complete report with recommendations was submitted to a large public gathering known as the National Health Conference held in Washington July 18 to 20, 1938. This conference comprised about one hundred representatives, citizens in all walks of life—labor, agriculture, industry, welfare, education, civic organizations, governmental agencies, and the professions. The medical and allied professions were distinctly in the minority. Editors of liberal and radical periodicals were present, as well as labor representatives with equally radical views.

The summary of the National Health Program submitted by the technical committee consisted of five recommendations, based on its consideration of the health needs of the nation. These included marked expansion of public health and maternal and child health services, increased hospital facilities through an extensive hospital building program, medical care for the medically needy, a general program of medical care, and health insurance plans.

The report of the conference concluded with the following: There was expressed widespread support by practically all, *but the professional minority*, for the broad recommendations of the Committee and for its proposal that the Federal Government should take the initiative in laying out and going forward with a health program for the nation.

In January, 1939, the President submitted to Congress the recommendations adopted by the National Health Conference, and a bill to implement the program was introduced by Senator Wagner of New York on February 28, 1939, to be known as "The National Health Act of 1939." The bill was referred to the Committee on Education and Labor and considered at public hearings during April, May, June, and July, 1939.

The principal arguments presented at the various hearings, against the measure, were grouped under four points:

1. Enactment of this legislation would be a further step toward a centralization of authority in the Federal Government and destruction of state sovereignty.

2. Paternalistic features would weaken the exercise of individual initiative, a fundamental characteristic under our system of government.

3. The origin and manner of presentation of the program afford a striking example of the tendency of bureaucracy to expand its power, the original sponsors being officials and employees of the government.

4. The cost of the program would be a serious drain on the budgets of Federal and State governments, and its financing would add a further obstacle to its functioning.

The original Wagner National Health Bill was not recommended for passage, but a modified bill known as the Wagner-George Hospital Bill was substituted, which provided for a more limited appropriation for hospital extension. It passed the Senate early in 1940, but when referred to the House it was killed in Committee.

While apparently dormant for a few years, the proponents of compulsory health insurance now come forward with a more comprehensive scheme under the new title, "A Unified National Social

Insurance System," or the Wagner-Murray-Dingell Social Security Plan, more commonly known as S. 1161. The Bill is pending in Congress and hearings are to be held sometime next spring.

This Bill goes much farther than any former measure in extending federal control over individual medical practice, hospital administration, methods of payments for medical and hospital services, as well as every phase of professional education and research.

By amendments to the Social Security Act there is to be created a Unified National Social Insurance System, which shall consist of the following: A national system of public employment offices; old age retirement and old age survivors insurance benefits; permanent disability insurance benefits; lump sum death payments; protection to individuals in the military service (By reinforcing the job guaranty in the Selective Service Act, the Bill gives to the returning veteran and his family paid-up benefit rights in every phase of this insurance protection.); unemployment and temporary insurance benefits; maternity, medical, and hospitalization insurance benefits; social insurance contributions; and a Federal Social Insurance Trust Fund.

The Bill covers ninety pages, of which nineteen pages are devoted to Federal medical, hospitalization, and related benefits, and includes provisions for every individual who is currently insured and found by the Social Security Board to be eligible for benefits under this Act and to be entitled to receive general medical, special medical, laboratory, and hospitalization benefits. Every dependent of the insured found eligible by the Social Security Board shall be entitled to the same benefits.

The particular sections of the proposed act pertaining to medical and hospital care will be administered by the Surgeon General of the United States Public Health Service and the Social Security Board.

The Bill also proposes that there be established a National Advisory Medical and Hospital Council to consist of the Surgeon General as Chairman, and sixteen members to be appointed by him from panels of names submitted by professional and other agencies and organizations concerned with medical services and education, with the operation of hospitals, and from among other persons, agencies, or organizations informed on the need for, or provision of, medical, hospital, or related services and benefits. Considerable latitude is permitted in selecting this Advisory Council, which is significant, when the many and important functions of this Council are considered.

This Council is authorized to advise the Surgeon General with reference to carrying out the



provisions of this Act, which include (1) professional standards of quality to apply to general and special medical benefits; (2) designation of specialists; (3) methods and arrangements to stimulate and encourage the attainment of high standards through coordination of the services of general practitioners, specialists, laboratories, and other auxiliary services; (4) standards to apply to participating hospitals and the establishment of a list of the same; (5) adequate and suitable methods and arrangements of paying for medical and hospital services, studies, and surveys of the services furnished by practitioners and hospitals, and of the quality and adequacy of such services; (6) grants-in-aid for professional education and research; and (7) establishment of special advisory, technical, local, or regional boards or committees. Thus this Council will supersede existing voluntary agencies now established for the certification and standardization of physicians, hospitals, and specialists in the different fields of medical practice, and in addition will determine the fees for services rendered under the provisions of this Act, and have supervisory control over medical schools and similar institutions.

The system proposed will be financed in general from a trust fund established by a 6 per cent employee and a 6 per cent employer contribution on all wages and salaries up to the first \$3,000 a year paid or received after December 31, 1943.

A new Title IX is to be added to the Social Security Act providing for a federal system of compulsory medical and hospitalization insurance for all persons covered under the old age and survivors insurance and also their dependents. Each insured worker and his dependent wife and children will be entitled to receive general medical, special medical, laboratory, and hospitalization benefits.

In addition the system is made elastic so that it may be enlarged in its coverage to admit other beneficiaries on a voluntary basis, such as self-employed individuals and employees of state and political subdivisions.

Self-employed individuals may receive such insurance benefits by paying into the Trust Fund an amount equal to 7 per cent of the market value of their services rendered as self-employed individuals after December 31, 1943, but not in excess of \$3,000 for any calendar year.

The Bill further authorizes the Social Security Board to enter into compacts with individual states or with political subdivisions for the purpose of extending the aforementioned insurance coverage to employees of such states and political subdivisions. To finance the benefits to be provided under such compacts, such employers are required to pay a

social security contribution equal to  $3\frac{1}{2}$  per cent of the wages paid by it after December 31, 1943, and every individual beneficiary of such a compact, a contribution equal to  $3\frac{1}{2}$  per cent of the wages received by him after December 31, 1943, excluding any amount paid or received in excess of \$3,000 during any calendar year after December 31, 1943.

The total receipt of such contributions are estimated at \$12,000,000,000 of which one-fourth or \$3,000,000,000 is to be placed in a special fund to pay for medical and hospital services provided under this Act.

The Surgeon General will be required to publish and otherwise make known in each area to individuals entitled to these benefits, the names of general practitioners who have signified their willingness or desire to participate in the insurance program.

Any legally qualified physician may so participate. No distinction is made between a recent graduate or an experienced practitioner. In Iowa all osteopathic physicians could participate in the program.

The Surgeon General may set maximum limits to the number of potential benefits for whom a general practitioner may undertake to furnish medical benefits.

The services of specialists ordinarily will be available only on the advice of the general practitioner.

The Surgeon General will determine what constitutes specialist service, and will also determine the qualifications of physicians as specialists "in accordance with general standards previously prescribed by him after consultation with the Council and utilizing standards and certifications developed by competent professional agencies."

For a hospital to participate in this insurance program, it must have been approved by the Surgeon General under standards prescribed by him after consultation with the Council.

Payments to general practitioners may be made (1) on the basis of fees for services rendered, according to a fee schedule approved by the Surgeon General; or (2) on a per capita basis, the amount being according to the number of individuals entitled to benefits who are on the practitioner's list; or (3) on a salary basis, whole or part time; or (4) on a combination or modification of these bases.

Payments to designated specialists may include payments on salary (whole or part time) "per session" fee for service, per capita, or other basis, or combination thereof.

The exact amounts for hospital benefits will be fixed by the Surgeon General after consultation



with the Advisory Council after approval by the Social Security Board.

The maximum number of days in any benefit year for which any individual may be entitled to hospitalization benefit will be thirty. If, however, the funds in the special hospitalization benefit account fund to be created prove adequate, the maximum number of days may be increased to ninety by the Surgeon General and the Social Security Board acting jointly.

These in outline are the essential features of the proposed National Social Insurance System and greatly enlarged Social Security Act. That it is a revolutionary measure, both with regard to insurance benefits and the system of prevailing medical practice, must be evident to everyone. Also, it must be apparent that there is very little left of individual prerogative for the medical practitioner or the hospital in complying with the regulations of this Act.

The proposed national insurance system has been referred to as an Americanized Beveridge Plan, and it will be of interest to note the adoption of certain principles governing the evolution of medical practice, at a conference last September, by a representative committee of the British Medical Association and other official bodies in Great Britain.

Special emphasis was placed on the principle that the health of the people depends primarily on the social and environmental conditions under which they work, and that improvement and extension of measures to satisfy these needs should precede or accompany any future organization of medical services.

Also fundamental is the principle that the efficiency of any medical service depends primarily on medical and scientific knowledge, which in turn is based on medical education.

The British Committee insisted on free choice between doctor and patient as fundamental to sound medical practice, and stated that it was not in the public interest that the state should convert the medical profession into a salaried branch of central or local government service.

The panel system of medical practice peculiar to the National Health Insurance Plan operating in Great Britain since 1912 has been aptly termed a "ten minute or five minute service" and found to be completely lacking in approximating anything resembling the quality of service which prevails in the United States.

It is appropriate also to refer to the resolution adopted at the annual meeting of the American Bar Association in August, 1943, which reads:

"Resolved, that the Board of Governors be required to appoint a special committee to study,

analyze and investigate Senate Bill 1161, and that the Board of Governors give publicity to the recommendations and findings of such special committee and the action of the Board of Governors thereon; and, be it further resolved that the House of Delegates is opposed to any legislation, decree, or mandate that subjects the practice of medicine to Federal control and regulation beyond that presently imposed under the American system of free enterprise."

As these various plans for medical care on a national basis have been presented, the medical profession is asked what plan or alternate proposal it has to offer.

The central figure in any plan of medical care is the individual patient; the quality of service rendered is the test or criterion at all times.

It is necessary at this time to restate and re-emphasize those basic principles of medical practice which must be the foundation of all advancement in medicine, not only in scientific development but also of social and economic progress in the practice of medicine.

The medical profession is ever willing to approve any national act which has for its objective an attempt to improve the health of our people.

It has been aptly stated that "civilization rests on the crust of environmental protection." Modern public health service under medical direction, with trained personnel, sanitary engineers, industrial hygienists, and public health nurses has made our communities happy places in which to live.

At the turn of the century the medical profession determined to put its own house in order in regard to medical education, and the remarkable evolution to its present high state has been the marvel of the educational world. It points with pride to the many new discoveries in medicine; remarkable achievements in the control of preventable diseases; special methods of treatment in certain diseases, such as insulin in diabetes and liver therapy in pernicious anemia; and the accomplishments in special fields in surgery. All are the products of American laboratories, research, and clinical institutes, and the enlightened general practitioner of medicine.

The development of the modern hospital is a further criterion of the type of medical practice which prevails in this country.

The excellent medical and surgical care of the sick and wounded in this global war is a further evidence of how well American Medicine was prepared for the great emergency.

That the modern physician and hospital authorities are conscious of their obligations to a changing social order is shown by the successful plans

# Roster of Iowa Physicians in Military Service

As of December 24, 1943

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) .....Capt., A.U.S.  
Gantz, A. J., Greenfield (APO Los Angeles, Cal.)..Capt., A.U.S.

## Adams County

Willett, W. J., Carbon (Camp Maxey, Tex.).....Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.)..Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.).....A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.)..Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Trenton, N. J.).....Capt., A.U.S.  
Huston, M. D., Centerville (Kansas City, Mo.) Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.).....Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 726, Seattle, Wash.)..Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (Camp Howze, Texas)....1st Lt., A.U.S.  
Bickley, J. W., Waterloo (Fort Sill, Okla.).....1st Lt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas)....Lt. Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
Ellyson, C. D., Waterloo (Beaufort, S. C.).....Lt., U.S.N.R.  
Ericsson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) .....Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.)..Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (McClellan Field, Ala.)..1st Lt., A.U.S.  
Ludwick, A. L., Waterloo (APO 813, New York, N. Y.).....Capt., A.U.S.  
Marquis, F. M., Waterloo (APO 180, Los Angeles, Cal.) .....Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) .....Capt., A.U.S.  
Paige, R. T., LaPorte City (Des Moines, Ia.)..Lt. Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO New York, N. Y.).....1st Lt., A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.)..Capt., A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) .....Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.).....Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.).....Major, A.U.S.  
Trunnell, T. L., Waterloo (care P.M., New York, N. Y.).....Lt., U.S.N.R.

## Boone County

Brewster, E. S., Boone (Camp Chaffee, Ark.)....Major, A.U.S.  
Healy, M. J., Boone  
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

## Bremer County

Amlie, P. J., Tripoli (Madison, Wis.)  
Blum, O. S., Waverly (Fleet PO, New York, N. Y.)..Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.)..Capt., A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.).....1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.)...Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) .....Capt., A.U.S.  
Loeck, J. F., Aurora (Camp Rucker, Ala.).....Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (Camp Shelby, Miss.)..Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.)..Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho)....Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.).....Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.)..Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.).....Major, A.U.S.

## Butler County

Anderson, B. V., Greene (Fleet PO, Seattle, Wash.) Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rolfs, F. O., Parkersburg (Springfield, Mo.).....1st Lt., A.U.S.

## Calhoun County

Grinley, A. V., Rockwell City (APO 507, New York, N. Y.).....Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.)....Capt., A.U.S.  
Peek, L. H., Lake City (Jefferson Barracks, Mo.)..Capt., A.U.S.  
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (Camp Carson, Colo.)....1st Lt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Barkeley, Texas)  
Anneberg, W. A., Carroll  
Cochran, J. L., Carroll (Gulfport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Camp Maxey, Texas)....Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.).....Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.).....A.U.S.  
Tindall, R. N., Coon Rapids (APO 948, Seattle, Wash.) .....Major, A.U.S.  
Wyatt, M. R., Manning (Camp Campbell, Ky.)....Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (Omaha, Nebr.).....Major, A.U.S.  
Longstreth, C. M., Atlantic (Norman, Okla.)..Lt. Comdr., U.S.N.R.  
Needles, R. M., Atlantic (Davis, Cal.).....Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.).....Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.).....Lt., U.S.N.R.  
Mosher, M. L., West Branch (Camp Gruber, Okla.) .....Capt., A.U.S.  
O'Neal, H. E., Tipton (Camp Polk, La.).....Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Brigham City, Utah)...Capt., A.U.S.  
Ezloff, W. C., Mason City (Mesa, Ariz.)  
Flickinger, R. R., Mason City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
Hale, A. E., Dougherty (Camp Hale, Colo.)  
Harris, R. H., Mason City (Columbus, Ohio)  
Harrison, G. E., Mason City (Boston, Mass.)....Col., A.U.S.  
Houlahan, J. E., Mason City (APO 839, New Orleans, La.) .....Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 758, New York, N. Y.).....Capt., A.U.S.  
Long, D. L., Mason City (Santa Ana, Cal.)  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) .....Capt., A.U.S.  
Sternhill, Irving, Mason City (APO New York, N. Y.)

## Cherokee County

Bullock, G. D., Washta (Camp Livingston, La.)....Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) .....Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.)..Capt., A.U.S.  
Swift, C. H., Jr., Marcus (Fort Bliss, Texas)....Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (Denver, Colo.)....Capt., A.U.S.  
Murphey, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) .....Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) .....Capt., A.U.S.  
Richmond, P. C., New Hampton (Camp Gruber, Okla.) .....Capt., A.U.S.

## Clay County

Adams, G. W., Royal (Fort Clayton, Panama Canal Zone)  
Edgington, F. D., Spencer (Lowry Field, Colo.)....Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
King, D. H., Spencer (Pendleton, Ore.).....Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) .....1st Lt., A.U.S.  
Rhomberg, E. B., Guttenberg (Camp Wallace, Texas).Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Portland, Ore.).....Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.).....A.U.S.  
Christensen, E. D., Grand Mound (Iowa City)  
Ellison, G. M., Clinton (Shreveport, La.).....Capt., A.U.S.  
Hill, D. E., Clinton  
King, R. C., Clinton (Camp Chaffee, Ark.)  
Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
Meyer, A. K., Clinton (Denver, Colo.)  
Norment, J. E., Clinton (Mare Island, Cal.)  
Riedesel, E. V., Wheatland (Fort Douglas, Utah)  
Snyder, D. C., De Witt  
Van Epps, E. F., Clinton (Palm Springs, Cal.)....Capt., A.U.S.  
Waggoner, C. V., Clinton (San Bruno, Cal.)..Lt. Comdr., U.S.N.R.

## Crawford County

Fee, C. H., Denison (Dunnellon, Fla.).....Capt., A.U.S.  
Gau, A. H., Denison .....Lt. Comdr., U.S.N.R.  
Maire, E. J., Vail (San Francisco, Cal.)  
Wetrich, M. F., Manilla (San Antonio, Tex.)

## Dallas-Guthrie Counties

Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)..Major, A.U.S.  
Fail, C. S., Adel (Pacific Beach, Wash.).....Lt., U.S.N.R.  
Margolin, J. M., Perry (Camp Cooke, Cal.).....Capt., A.U.S.



McGilvra, R. I., Guthrie Center (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mullmann, A. J., Adel (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Nicoll, C. A., Panora (Camp Chaffee, Ark.) ..... Capt., A.U.S.  
 Osborn, C. R., Dexter (San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.) ..... Capt., A.U.S.

#### Davis County

Fenton, C. D., Bloomfield (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Gilfillan, G. W., Bloomfield (Oceanside, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.) ..... Capt., A.U.S.

#### Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Clark, R. E., Manchester (APO 600, New York, N. Y.) ..... 1st Lt., A.U.S.

#### Des Moines County

Eigenfeld, M. L., Burlington (Camp Bowie, Texas) ..... 1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.) ..... Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.) ..... Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (Fort Lewis, Wash.) ..... Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.) ..... Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (Abilene, Texas) ..... Capt., A.U.S.  
 Sage, E. C., Burlington ..... Lt. Comdr., U.S.N.R.

#### Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henning, G. G., Milford (Camp Adair, Ore.) ..... Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.) ..... Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake (Fort Hancock, N. J.) ..... Capt., A.U.S.

#### Dubuque County

Beddoes, M. G., Cascade (APO 932, San Francisco, Cal.) ..... Capt., A.U.S.  
 Conzett, D. C., Dubuque (Fort Riley, Kan.) ..... Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio) ..... Capt., A.U.S.  
 Edstrom, Henry, Dubuque (Clinton, Iowa) ..... Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas) ..... 1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.) ..... Major, A.U.S.  
 Langford, W. R., Epworth (APO 948, Seattle, Wash.) ..... Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.) ..... Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.) ..... 1st Lt., A.U.S.  
 Mueller, J. J., Dubuque (Hattiesburg, Miss.) ..... 1st Lt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.) ..... Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.) ..... Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.) ..... Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.) ..... Major, A.U.S.  
 Smith, C. W., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.) ..... Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas) ..... Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Rochester, Minn.) ..... Lt. Comdr., U.S.N.R.

#### Emmet County

Clark, J. P., Estherville (APO New York, N. Y.) ..... Capt., A.U.S.  
 Collins, L. E., Estherville ..... A.U.S.  
 Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Fayette County

Camp, D. E., West Union (Camp Blanding, Fla.) ..... Capt., A.U.S.  
 Gallagher, J. P., Oelwein (Pensacola, Fla.) ..... Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.) ..... Major, A.U.S.  
 Hess, A. M., West Union (Albuquerque, N. Mex.) ..... 1st Lt., A.U.S.  
 Moen, H. P., West Union (Camp Barkeley, Texas) ..... Capt., A.U.S.  
 Sulzbach, J. F., Oelwein ..... A.U.S.  
 Walsh, W. E., Hawkeye (Great Lakes, Ill.) ..... Lt. Comdr., U.S.N.R.

#### Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.) ..... Major, A.U.S.  
 Flater, N. C., Floyd (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Knight, R. A., Rockford (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Mackie, D. G., Charles City (Topeka, Kan.) ..... 1st Lt., A.U.S.  
 Miner, J. B., Jr., Charles City (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (San Pedro, Cal.) ..... Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) ..... 1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (care PM, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.) ..... Lt., U.S.N.R.  
 Walton, S. G., Hampton (Camp Robinson, Ark.) ..... 1st Lt., A.U.S.

#### Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.) ..... Capt., A.U.S.  
 Marrs, W. D., Tabor (APO 846, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Wanamaker, A. R., Hamburg (Los Angeles, Cal.) ..... Capt., A.U.S.

#### Greene County

Cartwright, F. P., Grand Junction (Boise, Idaho) ..... Capt., A.U.S.  
 Castles, W. A., Jr., Rippey (APO San Francisco, Cal.) ..... Capt., A.U.S.  
 Hanson, L. C., Jefferson (Camp Rucker, Ala.) ..... 1st Lt., A.U.S.  
 Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Limberg, J. I., Jr., Jefferson (APO San Francisco, Cal.) ..... Capt., A.U.S.  
 Lohr, P. E., Churdan (San Diego, Cal.) ..... A.U.S.

#### Grundy County

Rose, J. E., Grundy Center (Norman, Okla.) ..... Lt. Comdr., U.S.N.R.

#### Hamilton County

Buxton, O. C., Webster City (Port Angeles, Wash.) ..... 1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.) ..... Major, A.U.S.  
 James, D. W., Kamrar (APO 700, New York, N. Y.) ..... Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 Mooney, F. P., Jewell (APO New York, N. Y.) ..... A.U.S.  
 Paschal, G. A., Williams (Camp Barkeley, Texas) ..... Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (Greenwood, S. Car.) ..... A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.) ..... Capt., A.U.S.

#### Hancock-Winnebago Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.) ..... Capt., A.U.S.  
 Duimes, A. H., Klemme (Camp Cooke, Cal.) ..... Capt., A.U.S.  
 Eller, L. W., Kanawha (APO 302, New York, N. Y.) ..... Capt., A.U.S.  
 Irish, T. J., Forest City (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Tucson, Ariz.) ..... A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.) ..... Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Mare Island, Cal.) ..... Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.) ..... Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Lawton, Okla.) ..... Capt., A.U.S.  
 Johnson, W. A., Alden (Pendleton, Ore.) ..... A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.) ..... 1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Long Beach, Cal.) ..... Lt., U.S.N.R.  
 Todd, V. S., Eldora (APO 545, Los Angeles, Cal.) ..... Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Benning, Ga.) ..... A.U.S.  
 Burbridge, G. E., Logan (Ft. Benning, Ga.) ..... Major, A.U.S.  
 Byrnes, C. W., Dunlap (Jefferson Barracks, Mo.) ..... A.U.S.  
 Heise, C. A., Jr., Missouri Valley ..... A.U.S.  
 Tamsiea, F. X., Missouri Valley (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) ..... Major, A.U.S.  
 Cogan, Samuel, Mt. Pleasant ..... A.U.S.  
 Dwankowski, Carl, Mt. Pleasant (APO 307, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (Fort McPherson, Ga.) ..... Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (Yuma, Ariz.) ..... Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah) ..... Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (Sioux Falls, S. Dak.) ..... Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 261, Los Angeles, Cal.) ..... Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.) ..... Capt., A.U.S.  
 Coddington, J. H., Humboldt (Fresno, Cal.) ..... 1st Lt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 4713, San Francisco, Cal.) ..... Capt., A.U.S.  
 Martin, J. W., Holstein (Montgomery, Ala.) ..... Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Clark, Texas) ..... Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.) ..... Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (Camp Atterbury, Ind.) ..... Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton ..... 1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Ritchey, S. J., Newton ..... Major, A.U.S.



**Jefferson County**

Castell, J. W., Fairfield (Fort Devens, Mass.).....Capt., A.U.S.  
 Gittler, Ludwig, Fairfield (APO 1001, New York,  
 N. Y.).....Major, A.U.S.  
 Graber H. E., Fairfield (Carlisle Barracks, Penn.) Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

**Johnson County**

Agnew, J. W., Iowa City (Fort Meade, S. Dak.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (Clinton, Iowa).....Major, A.U.S.  
 Boiler, W. F., Iowa City (Fort Leonard Wood,  
 Mo.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.)  
 .....Lt. Col., A.U.S.  
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (El Toro, Cal.).....Lt., U.S.N.R.  
 Cooper, W. K., Iowa City (Jefferson Barracks, Mo.) Capt., A.U.S.  
 Crowell, E. A., Iowa City (Randolph Field, Tex.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Key West, Fla.).....Lt., U.S.N.R.  
 Dörner, R. A., Iowa City (APO 534, New York,  
 N. Y.).....Capt., A.U.S.  
 Elmqvist, H. S., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt., U.S.N.R.  
 Emmons, H. S., Iowa City (Ablene, Texas).....Capt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourn, A. S., Iowa City (APO 34, New York,  
 N. Y.).....Lt. Col., A.U.S.

Francis, N. L., Iowa City (Annapolis, Md.) Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York,  
 N. Y.).....Major, A.U.S.

Hardin, R. C., Iowa City (APO 508, New York,  
 N. Y.).....Capt., A.U.S.  
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (Pepperell, Mass.).....1st Lt., A.U.S.  
 Irwin, R. L., Iowa City (Iowa City, Iowa).....Lt. Comdr., U.S.N.R.  
 January, L. E., Iowa City (Moses Lake, Wash.).....Capt., A.U.S.  
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt. (jg), U.S.N.R.

Longwell, F. H., Iowa City (APO 505, New York,  
 N. Y.).....Capt., A.U.S.  
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagyfy, S. F., Iowa City (Memphis, Tenn.).....Lt. (jg), U.S.N.R.  
 Newman, R. W., Iowa City (Fleet PO, New York,  
 N. Y.).....Lt., U.S.N.R.

Parkin, G. L., Iowa City (Mountain Home, Idaho) 1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 1001, New York,  
 N. Y.).....Lt. Col., A.U.S.

Petersen, V. W., Iowa City (APO 689, New York,  
 N. Y.).....Col., A.U.S.  
 Sells, R. L., Jr., Iowa City (South San Francisco,  
 Cal.).....Capt., A.U.S.

Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Stages, W. A., Iowa City (Camp Robinson, Ark.).....1st Lt., A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.

Stump, R. B., Iowa City (Fort Leonard Wood,  
 Mo.).....Capt., A.U.S.  
 Titus, E. L., Iowa City (Fort Banks, Mass.).....Col., A.U.S.  
 Trepasso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.

Trepasso, R. E., Iowa City (Philadelphia, Pa.).....1st Lt., A.U.S.  
 Vest, W. M., Iowa City (APO 928, San Francisco,  
 Cal.).....Capt., A.U.S.

Ward, R. H., Iowa City (Iowa City, Iowa).....U.S.N.R.

Weatherly, H. E., Iowa City (APO 7278, San Francisco,  
 Cal.).....1st Lt., A.U.S.

Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

**Junior Members**

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.) 1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.) Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.

Brintnall, E. S., Iowa City (Colorado Springs,  
 Colo.).....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.

Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.

Donnelly, B. A., Iowa City (APO San Francisco,  
 Cal.).....1st Lt., A.U.S.  
 Ehrenhaft, J. L., Iowa City (APO New York,  
 N. Y.).....1st Lt., A.U.S.

Englerth, F. L., Iowa City (APO San Francisco,  
 Cal.).....Capt., A.U.S.  
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.

Glassman A. L., Iowa City (Palm Springs, Cal.) 1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.

Harms, G. E., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.  
 Hendricks, A. B., Iowa City (Farragut, Idaho).....Lt., U.S.N.R.

Hovis, Wm., Iowa City (San Diego, Cal.).....Lt. (jg), U.S.N.R.  
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.

Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Treasure Island,  
 Cal.).....Lt. (jg), U.S.N.R.

Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.

Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.

McCann, J. P., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.  
 McQuiston, W. O., Iowa City (APO San Francisco,  
 Cal.).....Capt., A.U.S.

Moore, B. H., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Odell, Lester, Iowa City (Alameda, Cal.).....Lt. (jg), U.S.N.R.

Phillips, R. M., Iowa City (San Francisco, Cal.) 1st Lt., A.U.S.  
 Pulliam, R. L., Iowa City (Portland, Ore.).....Major, A.U.S.

Randall, C. G., Iowa City (Waterloo, Iowa).....Capt. A.U.S.  
 Rosenbusch, M., Iowa City (Fort Leonard Wood,  
 Mo.).....1st Lt., A.U.S.

Russell, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.

Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.

Shand, J. A., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.  
 Shapiro, S. I., Iowa City (Camp Grant, Ill.).....A.U.S.

Shapiro, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.  
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.

Skouge, O. T., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt., U.S.N.R.  
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.

Watters, V. G., Iowa City (Fort Leonard Wood,  
 Mo.).....1st Lt., A.U.S.  
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.

Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.  
 Willumsen, H. C., Iowa City (Chico, Cal.).....Capt., A.U.S.

Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.  
 Yetter, W. L., Iowa City (APO New York, N. Y.) Capt., A.U.S.

Zahrt, N. E., Iowa City (Miami Beach, Fla.).....1st Lt., A.U.S.  
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

**Keokuk County**

Bjork, Floyd, Keota (Austin, Texas).....A.U.S.  
 Doyle, J. L., Sigourney (Camp Berkeley, Texas).....A.U.S.

Engelmann, A. T., What Cheer (Camp Polk, La.) Capt., A.U.S.  
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.

Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.).....A.U.S.

**Kossuth County**

Clapsaddle, D. W., Burt (Ft. Benning, Ga.).....1st Lt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.

Williams, R. L., Lakota (San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.

**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (APO 726, Seattle, Wash.).....Capt., A.U.S.

Cooper, R. E., Keokuk (Fort Leonard Wood, Mo.).....Col., A.U.S.  
 Johnstone, A. A., Keokuk (Camp Robinson, Ark.).....A.U.S.

McKee, T. L., Keokuk (APO 922, San Francisco,  
 Cal.).....Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood,  
 Mo.).....Major, A.U.S.

Rankin, J. R., Keokuk (Fleet PO, New York,  
 N. Y.).....Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island,  
 Cal.).....Lt. Comdr., U.S.N.R.

Steffey, F. L., Keokuk (Fort Snelling, Minn.)  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.)  
 .....Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Los Angeles, Cal.).....Major, A.U.S.

Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Lt. Comdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (Camp Shelby, Miss.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO, 957, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 34, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.

#### Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Norfolk, Va.) ..... Lt. Comdr., U.S.N.R.

#### Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

#### Lyon County

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Capt., A.U.S.  
 Corcoran, T. E., Rock Rapids (APO New York, N. Y.) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 700, New York, N. Y.) ..... Capt., A.U.S.

#### Madison County

Boden, H. N., Truro (Fresno, Cal.) .....  
 Chesnut, P. F., Winterset (Portland, Ore.) ..... 1st Lt., A.U.S.  
 Vicks, R. L., Winterset (APO, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Weltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.

#### Mahaska County

Bennett, G. W., Oskaloosa (Fort Riley, Kan.) ..... Major, A.U.S.  
 Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Norman, Okla.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 Lemon, K.M., Oskaloosa ..... 1st Lt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 81, Los Angeles, Cal.) ..... 1st Lt., A.U.S.

#### Marion County

Elliott, V. J., Knoxville (Portland, Ore.) ..... Capt., A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Bastrop, Texas) ..... 1st Lt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

#### Marshall County

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) ..... Major, A.U.S.  
 Meyer, M. G., Marshalltown (Fort Ellen Allen, Vt.) ..... Major, A.U.S.  
 Noonan, J. J., Marshalltown (San Diego, Cal.) ..... Major, A.U.S.  
 Phelps, R. E., State Center (APO 730, Seattle, Wash.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (Gowen Field, Idaho) ..... Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (Portland, Ore.) ..... Capt., A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) ..... 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (Fort Riley, Kan.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

#### Millis County

DeYoung, W. A., Glenwood (APO 813, New York, N. Y.) ..... Capt., A.U.S.  
 Magaret, E. C., Glenwood (Lubbock, Texas) ..... 1st Lt., A.U.S.  
 Shonka, T. E., Malvern (APO 4913, New York, N. Y.) ..... Capt., A.U.S.

#### Mitchell County

Culbertson, R. A., St. Ansgar (Fort Knox, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (Camp Mackall, N. C.) ..... Major, A.U.S.  
 Owen, William, Osage (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Minneapolis, Minn.) ..... Lt., U.S.N.R.

#### Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... A.U.S.  
 Anderson, S. N., Onawa (San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 4759, San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 Gaukel, L. A., Onawa (APO 937, Seattle, Wash.) ..... 1st Lt., A.U.S.  
 Harlan, M. E., Onawa (care PM, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Rosecrans, Cal.) ..... A.U.S.  
 Walnwright, M. T., Mapleton (APO 939, Seattle, Wash.) ..... A.U.S.  
 Wolpert, P. L., Onawa (Rochester, Minn.) ..... 1st Lt., A.U.S.

#### Monroe County

Heimann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Capt., A.U.S.  
 Smith, R. A., Albia (San Antonio, Texas) ..... 1st Lt., A.U.S.

#### Montgomery County

Bastron, H. C., Red Oak (Macon, Ga.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) ..... Capt., A.U.S.  
 Nelson, C. C., Red Oak (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... 1st Lt., A.U.S.

#### Muscatine County

Ady, A. E., West Liberty (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Kalamazoo, Mich.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Lt. Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (APO Miami, Fla.) .....  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Muhs, E. O., Muscatine (Camp Claiborne, La.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 4735, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) ..... Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Major, A.U.S.

#### O'Brien County

Getty, E. B., Primghar (Shreveport, La.) ..... Capt., A.U.S.  
 Hayne, W. W., Paullina (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Moen, S. T., Hartley (APO 3492, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

#### Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

#### Page County

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Flt. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Bossingham, E. N., Clarinda (APO 923, San Francisco, Cal.) ..... Capt., A.U.S.  
 Bunch, H. Mck., Shenandoah (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 Burdick, F. D., Shenandoah (APO, New York, N. Y.) ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (APO 4713, San Francisco, Cal.) ..... Major, A.U.S.  
 Little, E. B., Shenandoah ..... 1st Lt., A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) ..... 1st Lt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

#### Palo Alto County

Davey, W. P., Emmetsburg (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.

#### Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... 1st Lt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

#### Pocahontas County

Blair, F. L., Jr., Fonda ..... 1st Lt., A.U.S.  
 Herrick, T. G., Gilmore City (Los Angeles, Cal.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 7233, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.

#### Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) .....  
 Anderson, N. B., Des Moines (APO 521, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Capt., A.U.S.  
 Bates, M. T., Des Moines (Fleet PO, New York, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Riverside, Cal.) ..... Capt., A.U.S.  
 Brown, A. W., Des Moines (APO 182, Los Angeles, Cal.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (Fort Bliss, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Burgess, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef-Offizierlager XXI B, Deutschland [Allemagne]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Vulcan, Alberta, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (Concordia, Kan.) ..... 1st Lt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (Randolph Field, Texas) ..... 1st Lt., A.U.S.  
 Connell, J. R., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.



- Corn, H. H., Des Moines (St. Louis, Mo.).....Capt., A.U.S.  
 Coughlan, D. W., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.).....Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.).....1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.).....Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.).....Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Fort Snelling, Minn.).....1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 628, New York, N. Y.).....Major, A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas).....Capt., A.U.S.  
 Ellis, H. G., Des Moines (Kearney, Nebr.).....Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas).....Major, A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Fracasse, John, Des Moines.....1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines.....Major, A.U.S.  
 Gibson, D. N., Des Moines (APO 9128, San Francisco, Cal.).....Major, A.U.S.  
 Glomset, D. A., Des Moines (New Orleans, La.).....1st Lt., A.U.S.  
 Goldberg, Louie, Des Moines (Gulfport, Miss.).....1st Lt., A.U.S.  
 Gordon, A. M., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 758, New York, N. Y.).....1st Lt., A.U.S.  
 Gurau, H. H., Des Moines (Santa Ana, Cal.).....1st Lt., A.U.S.  
 Haines, D. J., Des Moines (APO 913, San Francisco, Cal.).....Capt., A.U.S.  
 Harris, D. D., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.).....1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 James, A. D., Des Moines (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.).....Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Fort Stevens, Ore.).....Capt., A.U.S.  
 Kelley, E. J., Des Moines (Marshall, Mo.).....Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.).....Lt. Col., A.U.S.  
 Klockslem, H. L., Des Moines.....Lt. (jg), U.S.N.R.  
 Kottke, E. E., Des Moines (Temple, Texas).....Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.).....1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Lederman, James, Des Moines.....1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.).....Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (Jackson, Miss.).....1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.).....1st Lt., A.U.S.  
 Marouis, G. S., Des Moines (Chicago, Ill.).....Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.).....1st Lt., A.U.S.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa).....Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (March Field, Cal.).....Capt., A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.).....Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines.....1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.).....Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....Capt., A.U.S.  
 Morden, R. P., Des Moines (APO 4570, New York, N. Y.).....1st Lt., A.U.S.  
 Murphy, J. H., Des Moines (Barstowe, Cal.).....Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.).....Capt., A.U.S.  
 Noun, L. J., Des Moines (Fleet PO, New York, N. Y.).....Lt. (jg), U.S.N.R.  
 Noun, M. H., Des Moines (APO 514, New York, N. Y.).....Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.).....1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.).....Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 9301, New York, N. Y.).....Capt., A.U.S.  
 Penn, E. C., West Des Moines (Casper, Wyo.).....1st Lt., A.U.S.  
 Pfeiffer, E. P., Des Moines (Springfield, Mo.).....Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corpus Christi, Texas).....Lt., U.S.N.R.  
 Porter, R. J., Des Moines (Sioux City, Iowa).....Capt., A.U.S.  
 Powell, L. D., Des Moines (Long Beach, Cal.).....Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Priestley, J. B., Des Moines (Camp Phillips, Kan.).....Major, A.U.S.  
 Purdy, W. O., Des Moines (Camp Howze, Texas).....Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.).....Major, A.U.S.  
 Robinson, V. C., Des Moines (Tampa, Fla.).....Capt., A.U.S.  
 Rotkow, M. J., Des Moines (Louisville, Ky.).....1st Lt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Shepherd, L. K., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Shiffer, H. K., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.).....1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (Brownsville, Texas).....1st Lt., U.S.P.H.S.  
 Smead, H. H., Des Moines (Dover, Del.).....Capt., A.U.S.  
 Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Smith, R. T., Des Moines (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Snodgrass, R. W., Des Moines (Fort Rosecrans, Cal.).....Capt., A.U.S.  
 Snyder, G. E., Grimes (Sheppard Field, Tex.).....Major, A.U.S.  
 Sohm, H. A., Des Moines (Oceanside, Cal.).....Lt. Comdr., U.S.N.R.  
 Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.  
 Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.  
 Stickler, Robert, Des Moines (Fort Benning, Ga.).....Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (Camp Howze, Texas).....Capt., A.U.S.  
 Toubes, A. A., Des Moines (APO 12453, New York, N. Y.).....Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas).....Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.).....1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (Transfer, Penn.).....1st Lt., A.U.S.  
 Vaubel, E. K., Des Moines (Silver Spring, Md.).....Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.).....1st Lt., A.U.S.  
 Willett, W. M., Des Moines (Camp Rucker, Ala.).....Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Zarchy, A. C., Des Moines (Camp Cook, Cal.).....Capt., A.U.S.
- Pottawattamie County**  
 Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.  
 Cogley, J. P., Council Bluffs (APO 503, San Francisco, Cal.).....Major, A.U.S.  
 Collins, R. M., Council Bluffs (San Diego, Cal.).....Lt., U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Olathe, Kan.).....Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Chicago, Ill.).....Lt., U.S.N.R.  
 Jensen, A. L., Council Bluffs (APO 952, San Francisco, Cal.).....Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.  
 Lambert, E. M., Council Bluffs (Atlanta, Ga.).....Capt., A.U.S.  
 Maiden, S. D., Council Bluffs (Longview, Tex.).....Major, A.U.S.  
 Martin, L. R., Council Bluffs (APO 7278, San Francisco, Cal.).....Capt., A.U.S.  
 Moskovitz, J. M., Council Bluffs (Camp Lockett, Cal.).....Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (APO 938, Seattle, Wash.).....Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 34, New York, N. Y.).....Capt., A.U.S.  
 Treynor, J. V., Council Bluffs (Rochester, Minn.).....Lt. Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.  
 Wurl, O. A., Council Bluffs (APO 871, New York, N. Y.).....Capt., A.U.S.
- Poweshiek County**  
 Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.) Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.).....1st Lt., A.U.S.  
 Korfmacher, E. S., Grinnell (San Francisco, Cal.).....Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco, Cal.).....Capt., A.U.S.  
 Parish, J. R., Grinnell (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.
- Ringgold County**  
 Seaman, C. L., Mount Ayr (Van Buren, Ark.).....Capt., A.U.S.
- Sac County**  
 Bassett, G. H., Sac City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 1001, New York, N. Y.).....Capt., A.U.S.  
 Evans, W. I., Sac City (Camp Hood, Texas).....Capt., A.U.S.  
 Klockslem, R. G., Odebolt (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Neu, H. N., Sac City (APO 4936, San Francisco, Cal.).....Major, A.U.S.
- Scott County**  
 Baker, R. W., Davenport (Rock Island, Ill.).....Capt., A.U.S.  
 Balzer, W. J., Davenport (APO 939, Seattle, Wash.).....Capt., A.U.S.  
 Bishop, J. F., Davenport (APO 972, Seattle, Wash.).....Capt., A.U.S.  
 Block, L. A., Davenport (APO 534, New York, N. Y.).....Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York, N. Y.).....Capt., A.U.S.  
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.  
 Brown, D. H., Davenport (Waycross, Ga.).....Capt., A.U.S.



Brown, M. J., Davenport (Camp Hale, Colo.)...Major, A.U.S.  
 Carey, E. T., Davenport (Fort Andrews, Mass.)...1st Lt., A.U.S.  
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.)...Capt., A.U.S.  
 Coleman, Tom, Davenport (Camp Stewart, Ga.)...1st Lt., A.U.S.  
 Cummins, G. M., Jr., Davenport...1st Lt., A.U.S.  
 Decker, C. E., Davenport (Oklahoma City, Okla.)...1st Lt., A.U.S.  
 Evans, H. J., Davenport (St. Petersburg, Fla.)...Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.)...Capt., A.U.S.  
 Goenne, Wm., Jr., Davenport (Camp White, Ore.)...1st Lt., A.U.S.  
 Hurevitz, H. M., Davenport (APO 3658, New York, N. Y.)...Capt., A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.)...1st Lt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Barkeley, Texas) ...Major, A.U.S.  
 Kimberly, L. W., Davenport (New Orleans, La.)...Capt., A.U.S.  
 Krakauer, Max, Davenport (Battle Creek, Mich.)...1st Lt., A.U.S.  
 LaDage, L. H., Davenport (APO 180, Los Angeles, Cal.)...Major, A.U.S.  
 Lorfeld, G. W., Davenport (Columbus, Ohio) ...Capt., A.U.S.  
 Marker, J. I., Davenport (Camp Carson, Colo.)...Col., A.U.S.  
 McMeans, T. W., Davenport (APO 514, New York, N. Y.)...1st Lt., A.U.S.  
 Neufeld, R. J., Davenport (Camp Ellis, Ill.)...Capt., A.U.S.  
 Sheeler, I. H., Davenport (Carlisle Barracks, Pa.)...Capt., A.U.S.  
 Shorey, J. R., Davenport (Carlisle Barracks, Pa.)...Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 514, New York, N. Y.)...1st Lt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.)...Lt. Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (Paris, Texas) ...Capt., A.U.S.  
 Weinberg, H. B., Davenport (Fort Benning, Ga.)...Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.)...Capt., A.U.S.

### Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Griffith, W. O., Shelby (Camp Davis, N. C.)...A.U.S.  
 McGowan, J. P., Harlan (San Diego, Cal.)...Lt. Comdr., U.S.N.R.

### Sioux County

Gleysteen, R. R., Alton (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (Fort Sam Houston, Texas) ...1st Lt., A.U.S.  
 Larson, M. O., Hawarden (Camp Bowie, Texas)...Major, A.U.S.  
 Oelrich, A. M., Hull (Biloxi, Miss.)...1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Biloxi, Miss.)...1st Lt., A.U.S.

### Story County

Connor, J. D., Nevada (APO 708, San Francisco, Cal.)...1st Lt., A.U.S.  
 Fellows, J. G., Ames (Ft. Leonard Wood, Mo.)...Capt., A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.)...Lt. U.S.N.R.  
 McFarland, J. E., Ames (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (Del Valle, Texas) ...Capt., A.U.S.  
 Sperow, W. B., Nevada (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamogordo, N. Mex.)...Major, A.U.S.

### Tama County

Bezman, H. S., Traer (Camp Hood, Tex.)...1st Lt., A.U.S.  
 Boller, G. C., Traer (Camp Bowie, Texas)  
 Dobias, S. G., Chelsea (APO 937, Seattle, Washington)  
 Havlik, A. J., Tama (San Diego, Cal.)...Lt., U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.)  
 Standefer, J. M., Tama (San Diego, Cal.)...Lt., U.S.N.R.

### Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.)...1st Lt., A.U.S.

### Union County

Beatty, H. G., Creston (Camp Barkeley, Tex.)...1st Lt., A.U.S.  
 Paragas, M. R., Creston (Camp Beale, Cal.)...Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.)...1st Lt., A.U.S.

### Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.)...1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO New York, N. Y.)...Major, A.U.S.  
 Giffilan, C. D. N., Eldon (Battle Creek, Mich.)...Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.)...Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (Carlisle Barracks, Pa.)...1st Lt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa (APO 4774, New York, N. Y.)...Capt., A.U.S.  
 Prewitt, L. H., Ottumwa (March Field, Cal.)...Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas) ...Lt. Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.)...Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego, Cal.)...Lt. Comdr., U.S.N.R.

### Warren County

Fullgrabe, E. A., Indianola (Bethesda, Md.)...Lt., U.S.N.R.  
 Hoffman, G. R., Lacona (Camp San Luis Obispo, Cal.)...Capt., A.U.S.  
 Shaw, E. E., Indianola (APO 834, New Orleans, La.)...Capt., A.U.S.  
 Trueblood, C. A., Indianola (Camp Campbell, Ky.)...Capt., A.U.S.

### Washington County

Boice, C. L., Washington (Atlantic City, N. J.)...Lt., U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.

Mast, T. M., Washington (Portland, Ore.)...Lt. U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.)...1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.  
 Ware, S. C., Kalona (Camp McCoy, Wis.)...Capt., A.U.S.

### Wayue County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.)...Capt., A.U.S.

### Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.)...Capt., A.U.S.  
 Burch, E. S., Dayton (APO 4754, San Francisco, Cal.)...Capt., A.U.S.  
 Burleson, M. W., Fort Dodge (Monterey, Cal.)...1st Lt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa) ...Major, A.U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.)...Lt. Comdr., U.S.N.R.  
 Joyner, N. M., Fort Dodge (Brooklyn Field, Ala.)...Lt. Comdr., U.S.N.R.  
 Kluever, H. C., Fort Dodge (Farragut, Idaho) Lt. Comdr., U.S.N.R.  
 Larsen, H. T., Fort Dodge (Pensacola, Fla.)...Lt., U.S.N.R.  
 Shrader, J. C., Fort Dodge (APO 181, Los Angeles, Cal.)...Major, A.U.S.  
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.)...Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.)...Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.)...1st Lt., A.U.S.

### Winneshiek County

Fritchen, A. F., Decorah (APO San Francisco, Cal.)...Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 560, New York, N. Y.)...Major, A.U.S.  
 Larson, L. E., Decorah (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Calif.)...Lt. (jg) U.S.N.R.  
 Van Besien, G. J., Decorah (APO New York, N. Y.)...1st Lt., A.U.S.

### Woodbury County

Bettler, P. L., Sioux City (APO San Francisco, Cal.)...Major, A.U.S.  
 Blackstone, M. A., Sioux City (Pittsburg, Cal.)...1st Lt., A.U.S.  
 Boe, Henry, Sioux City (Salina, Kan.)...Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.  
 †Cmeyla, P. M., Sioux City (APO San Francisco, Cal.)...Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.)...Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa)...1st Lt., A.U.S.  
 Down, H. I., Sioux City (Camp Breckenridge, Ky.)...Major, A.U.S.  
 Elson, V. J., Danbury (Camp Walters, Tex.)...Capt., A.U.S.  
 Frank, L. J., Sioux City (Mare Island, Cal.)...Lt. Comdr., U.S.N.R.  
 Graham, J. W., Sioux City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Grossman, M.D., Sioux City (APO 33, San Francisco, Cal.)...Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Salt Lake City, Utah) ...1st Lt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.)...Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.)...Capt., A.U.S.  
 Kaplan, David, Sioux City (APO 759, New York, N. Y.)...Capt., A.U.S.  
 Knott, R. C., Sioux City (Atlanta, Ga.)...Capt., A.U.S.  
 Kristgen, W. M., Sioux City (Springfield, Mo.)...Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (Santa Fe, N. Mex.)...Major, A.U.S.  
 Martin, R. F., Sioux City (Gallatin, Tenn.)...1st Lt., A.U.S.  
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.)...1st Lt., A.U.S.  
 McCuiston, H. M., Sioux City (APO New York, N. Y.)...Capt., A.U.S.  
 Mogan, R. C., Sioux City (Gowen Field, Idaho)...1st Lt., A.U.S.  
 Osineup, P. W., Sioux City (APO 9101, New York, N. Y.)...Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.)...Capt., A.U.S.  
 Reeder, J. E., Jr., Sioux City (Modesto, Cal.)...Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.)...Capt., A.U.S.  
 Schwartz, J. W., Sioux City (Ft. Leavenworth, Kan.)...Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Ephrata, Wash.)...Capt., A.U.S.  
 Wilson, L. L., Sioux City (Camp San Luis Obispo, Cal.)...Capt., A.U.S.

### Worth County

Westly, G. S., Manly (APO 4580, San Francisco, Cal.)...Major, A.U.S.

### Wright County

Aagesen, C. A., Dows (Kansas City, Mo.)...Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.)...Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Phoenix, Ariz.)  
 Gorrell, R. L., Clarion (Buffalo, N. Y.)...Lt., U.S.N.R.  
 Leinbach, S. P., Belmond (Farragut Air Base, Idaho)  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.)...Capt., A.U.S.

(\*) Reported missing in action

(†) Reported killed in action.

(‡) Reported prisoner of war.

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## A PROGRAM OF POSTWAR PLANNING FOR THE WOMAN'S AUXILIARY\*

Morris Fishbein, M.D., Editor

Journal of the American Medical Association

Postwar planning is engaging the attention of everyone today; I feel quite sure the Woman's Auxiliary has given it some thought. The American Medical Association, on recommendation of Dr. Paullin, has established by action of the House of Delegates a committee on the planning of postwar medical service. There are going to be tremendous changes in the nature of the practice of medicine, despite what many think. The American Medical Association, for many years, has waged warfare to maintain and provide for the American people a high quality of medical service. I have no doubt the House of Delegates and the Board of Trustees will continue to do their utmost, regardless of what form of medical practice may eventuate in this country, to conserve all the factors that are responsible for maintaining this quality.

There are new social trends, new scientific attitudes and new discoveries developed at a speed greater than has ever previously occurred in the world; all of these are bound to affect the practice of medicine. There is a gradual development of a social trend leading toward "security". In England it is the Beveridge Plan, created to carry man from the cradle to the grave; in the United States it is the National Resource Planning Board, which takes an individual six months before life and carries him twenty years beyond. We are concerned with the prenatal care of the mother and unborn infant, as well as the dependents of those who die and these dependents must be cared for until they reach maturity. Many factors in the scheme in Great Britain will unquestionably affect the lives of those in the United States. Beveridge was asked if the adoption of the "cradle to the grave" plan would mean the end of the private practice of medicine. He replied that he felt that it would.

The National Resource Planning Board here in the United States has many features in its plan that are to be recommended and behind which we should place our best efforts. For instance, during the great depression following the last war there were thou-

sands and thousands of idle ex-service men thrown upon the mercies of charity or given manufactured jobs of no importance; we certainly do not want that to happen again. In this war ten million men and between 50,000 and 60,000 American physicians will be engaged in the war effort. When those men are discharged into civilian life they must be provided with occupations. If they are not, we will see them tramping the streets begging for food, clothing and the necessities of life. We will see some attempt to manufacture work again. A proposal has been made to finance them on their discharge from service to the amount of \$8,600 per man.

There are at present 20 million workers in the United States engaged in war work. When the war is terminated new occupations must be found for these men and women. Unless they are made ready, these people will be without work. There are many means of supplying these occupations—living conditions could be improved, a housing expansion program instituted, remodeling of old and building of new hospitals, health center movement for the control of infectious diseases, etc. The health movement is in its infancy and could be extended throughout the United States under the leadership of American medicine and public health. If these steps are to be taken, it is important that somebody begin to plan now where the hospitals and health centers are to be established, who is to run them and how they are to be financed and how managed. An intelligent man would begin planning now and make the necessary study to find out where hospitals are needed, how they should be managed and staffed. All of this is very much in the minds of the Board of Trustees of the American Medical Association.

I am sure if this postwar program develops there will be innumerable places where the Woman's Auxiliary can come to the aid of the medical profession and find new outlets for service. In the growth of the health movement, there are going to be great opportunities for health education. A group such as the Woman's Auxiliary, which has informed itself of the needs in medicine and medical education through *Hygeia*, can fit themselves well into a program of this kind and render assistance that could not be supplied by any other group. You would also be contributing to the prevention of a world wide depression such as followed World War I and aid in the reconstruction of the United States.

\*From the August 1943 issue of the Bulletin of the Woman's Auxiliary to the American Medical Association.



The Board of Trustees is giving special attention to fitting back into civilian life the 40,000 doctors in the armed forces who will be returning, most of them to the United States, to take up the practice of medicine under the conditions that will prevail at the time of their return. It is the greatest opportunity that has ever arisen in this country to meet the challenge of distribution of medical care—the one charge that is made against medicine in the United States. Medical care of this country is distributed primarily according to the economic status of the community in which the medical care happens to be supplied. In other words, in rural areas where the per capita income is low there is a shortage and lowered quality of medical service. In areas where there is a high per capita income, there is an excess and high quality of medical service. To redistribute 40,000 physicians and guide them into the areas where medical service is low, we must begin now and plan for the future creation of conditions that will appeal to those who are returning from service and will be looking for a place to locate. One way is to have available all of the necessary clinical, laboratory and scientific diagnostic facilities and aids to enable these men to practice the kind of medicine they were taught in medical schools before they went into the service.

There is at the present moment in Congress new legislation proposed which would materially change the nature of medical practice in the United States. I refer to the Wagner-Murray-Dingell Bill planned to extend social security to all of the people in the United States.

In all of these movements the Woman's Auxiliary is going to be asked to give to the Board of Trustees every assistance it can. You exercise a tremendous influence not only by your membership in the Auxiliary but by your affiliations with other organizations. It would be the height of folly if the Board of Trustees did not realize that in the Woman's Auxiliary it has a powerful weapon capable of mobilizing vast forces in behalf of all that is good in medicine.

#### AMERICA MUST NOT BE SHACKLED

The following excerpt has been taken from an address, "America Must Not Be Shackled," delivered by the Honorable Joseph W. Martin, Jr., Republican Leader of the House of Representatives. The complete address, which was given October 1, 1943, before the Fifteenth Annual Assembly of the Medical Society of the District of Columbia, may be found in "The Congressional Record" of October 4, 1943.

"I do not need to remind you that one of these groups would radically change the status of your profession. Instead of leaving you free, they would regiment you under a rigid system of governmental controls. They would curb your opportunities. They would arrest your progress. They would deprive you of freedom. And they would do all this under the specious plea of aiding the unfortunate and giving all people security.

"These misguided individuals evidently forget that if you regiment men and women, if you eliminate the opportunity for individual progress, you kill individual initiative at the same time.

"A ward of the state, with specific limitations and a fixed income, operating under the direction of a bureaucrat who may himself possess no scientific knowledge, would not, except in rare instances, put in the long hours of intensive study and experimentation necessary to blaze the way for progress. A physician on a fixed salary and in a treadmill practice would not have the same urge to watch zealously over those in his care as the physician whose patient is his personal, individual responsibility. By destroying initiative and progress we might well be sentencing vast numbers of people to earlier deaths because we could not as intelligently cope with disease.

"Every one of us has a definite interest in seeing that every child, every woman and every man secures adequate medical aid and care. We can, and we will, as a government, discharge our full obligations to the sick, the aged, and the unfortunate unable to pay their own way. But we must do it in the American way—in a way which will preserve the spirit and the initiative of the men and women of your profession. They must be encouraged to go ahead with studies and experiments; to make new and greater scientific discoveries for the benefit of mankind. And we must care for our ailing ones in such a way that every patient will not be a ward and pawn of an all-powerful state.

"We must not shackle your great profession and restrict the service it can give to the world. If we give to some bureaucrat the power to regulate the practice and fix the fees of the physician and to govern the hospitals, we will shackle the science of medicine. We must make sure every man and every woman retains the right to select the doctor of his or her own choice. That has been a great American right and the people of this country want to keep it.

"To place the practice of medicine under bureaucratic control would not affect medicine alone; it would constitute a long forward step in putting the other professions and all American labor, industry and agriculture under the direction of a Washington bureaucracy. By whatever name we might call it, it would be a form of state socialism.

"You plainly see the threat hovering over your own profession, and you are not alone in your anxiety. Other classes in our national life face a similar peril.

"All professions and all business, big and small alike, face the menace of a new era in which private enterprise will no longer have a free opportunity to flourish.

"Only through an aroused people, determined to preserve our free way of life and the private enterprise system which has given so much to every American, regardless of race, color, religion, or social status, can we save our heritage.

"Let us constantly remind ourselves that while



it may have its faults, the American system has provided its people with more happiness and more of the comforts of life than have ever been enjoyed by the people of any other land.

" . . . . . To fail to preserve our American way will mean we shall have lost the war, regardless of how complete may be our victories over our enemies abroad."

### FILMS FOR HEALTH

Attention County Presidents and Program chairmen! The State Public Health Department, Public Relations Division, Des Moines, Iowa, has many excellent films for distribution to clubs and organizations in the state. Write them for a list. All you have to do is to pay return mailing costs.

Most schools have a projector and will gladly cooperate with you directly or through the Parent-Teacher Association in a community health program.

These programs are essential in wartime, especially those on communicable diseases, home nursing, first aid, food and nutrition, and others. You will find the subjects you want in the list. Make it your job to have these films shown in your community.

Mrs. Russell C. Doolittle, Public Relations Chairman.

### FACTS CONCERNING HYGIEIA

The following are twelve excellent reasons, taken from the 1943-1944 *Hygieia Handbook*, why every doctor's wife should not only subscribe to *Hygieia*, but also make it her business to interest the laity in it.

1. *Hygieia* prints *authentic* health information.
2. *Hygieia* gives in clear, concise and simple terms scientific knowledge of the medical world that even the school child will understand.
3. *Hygieia* gives reliable information regarding quacks, faddists and cultists. It is a safeguard against ignorance. The American public squanders more than four million dollars annually on patent medicines.
4. *Hygieia* is packed with up-to-date reliable health information for the teacher.
5. *Hygieia* teaches how to form health habits intelligently.
6. *Hygieia* serves as a text and reference book.
7. *Hygieia* deals with the simple but fundamental principles of health that affect daily living in homes, schools and communities.
8. *Hygieia* contains child welfare articles for mothers who are helping their children form health habits.
9. *Hygieia* gives good sound health advice to the business man and woman regarding how much and what kind of food, exercise, rest and sleep they should have.

10. *Hygieia* is the medium of conveying to the people who are not patients of the medical profession, scientific information concerning the prevention of disease.
11. *Hygieia* is a clearing house for health news and views and health activity in all parts of the world.
12. *Hygieia* gives health information, but each article emphasizes the intrinsic value of **YOUR FAMILY PHYSICIAN**.

### FEDERALIZATION OF THE PRACTICE OF MEDICINE

(Continued from page 29)

now operating in the medical care of the indigent and the sound application of the insurance principle for employees of large industrial and business concerns to aid the individual to budget against the cost of emergency and catastrophic illness.

Voluntary prepaid medical and hospital insurance now covers some 12,000,000 persons in this country. Under medical supervision and developed on a voluntary state or local basis, such plans promise much for the health security of our people.

Now we are asked to change from a system of medical care that has stood the test of years to one entirely under federalized control, a system based largely on the cost of medical care to be met with a comprehensive plan of uniform taxation of the beneficiaries concerned. At best it is an experiment with no successful precedent anywhere in a democracy such as ours. Every thoughtful physician sees in it a definite sacrifice of present standards of medical care.

The medical profession has been too long on the defensive, and the time has come to assert a more aggressive attitude toward these important problems. It will require a most vigorous offense to combat this threatened legislation, because aside from the specific medical features, it not only introduces socialization on a vast scale but also contemplates an entirely federal administration with complete disregard of state boundaries and sovereignty.

Furthermore, such a system will inevitably be burdened with the by-products of red tape and mediocrity inherent in most civil services and some politics.

Above all, there is need to consider the price, other than financial, that will be paid for this promised greater social security, even at the sacrifice of individual freedom.

If we would save for the American people a plan of medical care which insures the highest quality of service, we must fight for it.

## SOCIETY PROCEEDINGS

### Appanoose County

Members of the Appanoose County Medical Society met in Centerville Tuesday evening, December 14, at St. Joseph Mercy Hospital, for a discussion of their medical program for the coming year and for their annual election of officers. Those named to serve the society include: Dr. James C. Donahue of Centerville, president; Dr. William L. Downing of Moulton, honorary vice president; Dr. Robert L. Fenton of Centerville, secretary and treasurer; Dr. Bernard B. Parker of Centerville, delegate; and Dr. Donahue, alternate.

### Black Hawk County

The regular monthly meeting of the Black Hawk County Medical Society was held at Black's Tea Room in Waterloo Tuesday, December 21, at 6:30 p. m. Officers elected to serve the society during 1944 are: Dr. Henry A. Bender, president-elect; Dr. Burr C. Boston, vice president; Dr. Sterling A. Barrett, secretary; Dr. George C. Murphy, treasurer; and Dr. F. Harold Entz, censor. Dr. Emery E. Magee was inducted as president for the year, having been named president-elect last year. All officers are of Waterloo.

The scientific program, which was presented following the election, comprised a paper on Surgical Dressings of the Abdomen by Russell S. Gerard, M.D., Waterloo, and a discussion of Pneumonitis in Infants by Charles A. Waterbury, Jr., M.D., Waterloo.

S. A. Barrett, M.D., Secretary

### Butler County

Members of the Butler County Medical Society held a dinner meeting in Allison Tuesday evening, November 24, with their wives as guests. Following dinner Dr. Carl F. Roder of Dumont presented motion pictures taken on his hunting trips in the north woods.

### Des Moines County

The annual meeting of the Des Moines County Medical Society was held in Burlington Tuesday evening, December 21, at Hotel Burlington. Dr. Elwood P. Russell of Burlington was reelected president of the society and Dr. Horace F. Hosford of Burlington was renamed secretary and treasurer.

### Franklin County

The Franklin County Medical Society held a luncheon meeting and business session at Hotel Coonley in Hampton Thursday noon, December 9.

Officers chosen to serve the society during the coming year are: Dr. Joseph C. Powers, president; Dr. Jessie B. Hudson, vice president; and Dr. Frank L. Siberts, secretary and treasurer. All officers are of Hampton.

### Greene County

Dr. Walter E. Chase of Rippey was elected president of the Greene County Medical Society at its regular meeting Thursday evening, December 16, in Jefferson at the Greene County Hospital. Other officers who will serve the society during 1944 are Dr. Leo C. Nelson of Jefferson, vice president, and Dr. John R. Black of Jefferson, secretary.

### Iowa County

The annual meeting of the Iowa County Medical Society was held in Marengo Tuesday evening, December 21, at the South Side Cafe. All present officers of the society were reelected for 1944. Included in the group are: Dr. Edward L. Hollis of Marengo, president; Dr. Thomas D. Clark of Victor, vice president; Dr. Irvin J. Sinn of Williamsburg, secretary and treasurer; Dr. Hollis, delegate; Dr. Henry G. Moershel of Homestead, alternate; and Dr. Clyde F. Watts of Marengo and Dr. Alexander C. McKean of Ladora, program committee.

### Jefferson County

The Jefferson County Medical Society held a dinner meeting in Fairfield Wednesday evening, December 8, at which the annual election of officers was held. Those named to serve the society during 1944 include: Dr. Kenneth G. Cook, president; Dr. George K. Dunkel, vice president; Dr. Ira N. Crow, secretary and treasurer; Dr. James S. Gaumer, delegate; and Dr. Roy A. McGuire, alternate. All officers are of Fairfield.

### Johnson County

The regular monthly meeting of the Johnson County Medical Society was held at Hotel Jefferson in Iowa City Wednesday, December 1, at 6:00 p. m. The annual election of officers was held following dinner and those chosen were: Dr. Adolph L. Sahs, president; Dr. Jason N. Smith, vice president; Dr. Rubin H. Flocks, secretary and treasurer; Drs. Ewen M. MacEwen, George C. Albright, and Andrew W. Bennett, delegates; and Drs. Milford E. Barnes, Paul A. Reed, and John W. Dulin, alternates. All officers are of Iowa City.

The scientific program of the evening consisted of a discussion of the Wagner-Murray Bill by Pro-

fessor George F. Robeson and Professor Karl E. Leib of the University of Iowa.

A. L. Sabs, M.D., Secretary

#### Kossuth County

Members of the Kossuth County Medical Society held a farewell dinner in Algona Tuesday evening, November 23, for Dr. John N. Kenefick of Algona, who was leaving soon for San Diego, California, to report for duty as a Lieutenant Commander in the Navy. Dr. Kenefick was presented with a leather traveling set.

#### Louisa County

The Louisa County Medical Society met in Letts Thursday evening, December 9. A dinner was served to the members and their wives, following which the doctors went to the office of Dr. Thomas L. Eland for their business meeting. The main topic of discussion was the Wagner-Murray Bill. The ladies spent the evening at the Eland home.

#### Page County

The Page County Medical Society held a luncheon meeting in Clarinda Thursday noon, December 2, at Hotel Linderman. Guest speaker for the occasion was Charles P. Baker, M.D., pathologist at the Nebraska Methodist Hospital and Deaconess Home in Omaha.

#### Pottawattamie County

Members of the Pottawattamie County Medical Society met at the Hotel Chieftain in Council Bluffs Tuesday evening, November 23. The immunization program and the Wagner-Murray Bill were the main topics of discussion during the evening.

#### Scott County

The December meeting of the Scott County Medical Society was held Tuesday, December 7, at the Lend-A-Hand Club in Davenport at 6:00 p. m. The guest speaker of the evening was Lieutenant Colonel William J. Carrington, M.C., chief of surgery at Schick General Hospital in Clinton, who spoke on Common Gynecological Problems.

Leo J. Miltner, M.D., Secretary

#### Tama County

The Tama County Medical Society met Thursday evening, December 9, in Traer at the Please U Cafe. A business meeting was held and also the election of officers for 1944.

C. W. Mapleshorpe, M.D., Secretary

#### Washington County

Members of the Washington County Medical Society met in the offices of the County Health Unit in Washington Tuesday evening, November 30. The guest speaker of the evening was Wilbur R. Miller, M.D., associate professor of psychiatry at the State University of Iowa College of Medicine, who gave an interesting discussion on Psychiatry for the General Practitioner.

#### PERSONAL MENTION

Dr. Ray L. Corbin, who has been located in Luverne for the past several years, has accepted a position on the medical staff of the Veterans Administration in Des Moines.

Dr. John W. Thornton of Lansing was the guest speaker at a meeting of the Waukon Kiwanis Club Monday evening, November 22. Dr. Thornton spoke on Socialized Medicine and included a discussion of the Wagner-Murray Bill.

Dr. William Jepson of Sioux City spoke before the Sioux City Chapter of the American Inter-professional Institute at its luncheon meeting Friday noon, December 17. The subject of his address was The Medical Profession as Related to the Development of Sioux City.

Dr. Thomas F. Thornton of Waterloo addressed the Rotary Club of that city at its regular weekly luncheon meeting Monday, December 13, at Hotel Russell-Lamson. Dr. Thornton discussed the Wagner-Murray Bill.

#### MARRIAGE

Dr. Gail A. McClure, daughter of Dr. and Mrs. E. C. McClure of Bussey, and Chief Pharmacist Mate Carrington A. Proffitt of Roanoke, Virginia, were united in marriage Friday morning, December 3, in the First Congregational Church in Ames. The couple will reside in Ames where Mrs. Proffitt has been engaged in the practice of medicine at Iowa State College Hospital for the past several years and Chief Pharmacist Mate Proffitt has been stationed at the Naval Training School.

#### DEATH NOTICES

Denny, Thomas Collins, of Des Moines, aged fifty-six, died December 22 of a heart ailment. He was graduated in 1912 from the Jefferson Medical College of Philadelphia, and at the time of his death was a life member of the Polk County and Iowa State Medical Societies.

Donelan, James Michael, of Glenwood, aged eighty-seven, died December 23. He was graduated in 1882 from the College of Physicians and Surgeons of St. Joseph, Missouri, and at the time of his death was a life member of the Mills County and Iowa State Medical Societies.

Rogers, Marion William, of Leon, aged sixty-seven, died December 7 following an illness of several months. He was graduated in 1908 from the University Medical College of Kansas City, Missouri, and at the time of his death was a member of the Decatur County and Iowa State Medical Societies.



# HISTORY OF MEDICINE IN IOWA

*Edited by the Historical Committee*

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary*

DR. JOHN T. MCCLINTOCK, Iowa City

DR. MURDOCH BANNISTER, Ottumwa

DR. FRANK E. SAMPSON, Creston

## Medical History of Woodbury County

WILLIAM JEPSON, M.D., Sioux City

### PART IV

(Continued from last month)

#### TUBERCULOSIS HOSPITAL

Woodbury County in 1914, after having voted the funds for the erection and equipment of a Tuberculosis Hospital, erected such with a capacity of thirty patients. It is thoroughly equipped and staffed by a superintendent and a corps of trained nurses. Its services are limited to the care of the county's indigent tuberculous patients.

Its inmates now number twenty-one patients. However, in times past, the capacity of the institution has been taxed.

The professional care of the patients is supervised by a medical staff, which at the time of this writing is comprised of Drs. J. A. Thomson, R. J. Harrington, Raymond Darling, F. J. Stodden, R. T. Rowher, P. D. Knott, and D. M. Harris, Director of Public Health activities. The staff meets monthly. Dr. J. A. Thomson is the attendant in the interim.

#### DETENTION HOSPITAL

The city maintains a Detention Hospital for the care of its persons with contagious diseases. The professional care of its inmates is supervised by the City Health Officer, Dr. Benjamin Courshon.

#### ORGANIZATION OF THE PRESENT HEALTH DEPARTMENT

In the fall of 1892 the City Council, acting as a Board of Health (a duty which still devolves upon it), was led to consider closing the public schools because of a severe outbreak of diphtheria. Upon the advice of its health officer, Dr. William Jepson, the Council changed its plans of controlling contagious diseases. Prior to this time the Mayor acted as an administrative official and had a quarantine card tacked upon the premises of those patients reported by physicians. He considered this the extent of his duties and, henceforth, for-

got the case. The result was that the quarantine was not effective. The placard was often torn off, and the patient would state that the wind had torn it away. Subsequent fumigation of the premises, if performed, was carelessly handled under the direction of the attending physician.

The changes advised were: First, that the Mayor transfer to the health officer his powers, as defined by the statutes, and make him responsible for the execution of the health laws and regulations; second, that the Council appoint a health police officer who should serve and be solely responsible to the health officer. This advice was accepted and adopted. The result was that thenceforth a strict quarantine was maintained through the reporting of all cases to the health officer, whose police attendant affixed the quarantine card, visited the premises twice daily, and removed the quarantine sign, disinfected the premises, and released the patients after complete fulfillment of the regulations. The effects of such regulations are referred to later in the discussion of the epidemic. From this simple beginning, the department has had a phenomenal growth as shown by its further history.

In 1908 the first physician, Dr. Benjamin Courshon, was appointed as full-time health officer—a step forward. For the first time this gave medical advice and direction to Health Department activities. Incidentally, Dr. Courshon remained with the Department until his death in 1943.

About 1916, Mr. W. D. Hayes was employed by the city as milk inspector. A few pieces of apparatus were purchased and the work of milk and food inspection with some laboratory control was begun. By 1920, with the assistance of the State Hygienic Laboratories, a more fully equipped laboratory was established and Mr. Hayes was ap-

pointed bacteriologist and chemist for the city. With this increase in facilities, laboratory services were available to the physicians of the city and surrounding territory in aiding in the diagnosis and control of communicable diseases.

During the next few years came the beginning of such programs as the immunization campaigns against diphtheria and smallpox; the tuberculin testing of cattle for the eradication of bovine tuberculosis (in cooperation with the United States Department of Agriculture); the inspection of meats in the independent packing plants of the city; the beginning of the Public Health Nursing Service; and the enforcement of the State Housing Law. Following the resignation of Mr. Hayes in 1928, several changes came in rapid succession: Mr. F. H. Collins was appointed to take over the duties of Mr. Hayes and served until 1930, and Mr. George Cooksey became laboratory technician. In 1930 Mr. Collins resigned and was replaced by Dr. E. B. Godfrey, who remained only a few months. For the next half year Dr. Courshon acted as temporary head of the department. In 1928, Dr. B. G. Reid was appointed milk inspector. He served until 1941.

In 1930, cooperation between the Iowa State Department of Health and various counties was made possible and the Sioux City Health Department became the Woodbury County Health Unit. In September of that year Dr. Wallace S. Petty became Director of the Unit and served in this capacity until September, 1940. During his administration the public health and school nursing program was extended to Woodbury County as a whole, and two nurses were employed to carry on this program. A public health engineer was assigned to this county by the State Department of Health. The laboratory staff also changed; Mr. Cooksey resigned in 1931 and his place was taken by E. E. Eichelberger who stayed until 1938. The position was then filled by H. E. Peebles.

Following the resignation of Dr. Petty, the State Department of Health sent Dr. James P. Sharon to serve as Director of the Unit until a permanent successor was selected. Dr. John A. Cowan was chosen and became Director on November 1, 1940.

In July, 1941, the State of Iowa was divided into districts for health administration purposes. Woodbury County became part of District No. 4, which is composed of five counties: Plymouth, Woodbury, Monona, Crawford, and Ida. Dr. Cowan assumed the position of Director of this district.

Also in 1941, following an inspection of the Laboratory by a representative of the United States Public Health Service, grants from Federal

and State funds were made. These grants made possible the purchase of all necessary apparatus to meet the needs of a modern laboratory in giving complete public health service. The city equipped the laboratory rooms with necessary fixtures. The State of Iowa supplied two additional persons trained in Public Health Laboratory technic.

In August, 1941, a new milk ordinance for the city was passed. It provided adequate safeguards for the city milk supply. This brought about the employment of three additional inspectors, and provided for the control of the milk supply on the farm, in the dairy, and in the product as marketed to the consumer.

A meat ordinance was also adopted in 1941. It enabled more complete control of the quality of the meat produced in the independent meat packing plants in Sioux City. One additional inspector was employed. In 1942 a food and food handling ordinance was passed. It gave more adequate inspection of all places serving food and drinks and more complete supervision of the health of employees.

In March, 1943, Dr. Cowan was called into the armed services as a Surgeon in the United States Public Health Service. His place is filled during his absence by Dr. Donald M. Harris.

Illustrative of the increasing demands for public health service, the growth of the work and the personnel of the nursing service of this Department is interesting. This service was begun by twelve members of the Sioux City Women's Club who furnished the salary of one nurse for one year. By 1909 two nurses were so employed. In 1912 the organized Welfare Bureau was established and the sponsorship of the Women's Club was taken over and continued. In 1915 a school nursing program was begun.

The Visiting Nurse Association was organized in 1923, and this group still furnishes the staff upon whom the major part of the nursing program depends. The personnel is made up of a director, an assistant director, and six full time nurses. Their duties are no longer only the necessary bedside nursing as of old, but also the case and contact finding and case holding in communicable diseases (diphtheria, tuberculosis, and venereal disease), and the general health education of the people they serve. These nurses also furnish the necessary assistance in various Department Clinics (Venereal, Tuberculosis, Well Baby, etc.). The funds for their work come from the Community Chest, the County, the insurance companies, the Tuberculosis Seal Sales, and the home visits.

(To be concluded)



# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**URINE AND URINALYSIS**—By Louis Gershenfeld, Ph.D., professor of bacteriology and hygiene and director of the Bacteriological and Clinical Chemistry Laboratories at the Philadelphia College of Pharmacy and Science. Second edition, thoroughly revised. Lea & Febiger, Philadelphia, 1943. Price, \$3.25.

**FRACTURES AND DISLOCATIONS for Practitioners**—By Edwin O. Geckeler, M.D., fellow of the American College of Surgeons, fellow of the American Academy of Orthopaedic Surgeons, diplomate of the American Board of Orthopaedic Surgery. Third edition. The Williams and Wilkins Company, Baltimore, 1943. Price, \$4.50.

**INTERNAL MEDICINE IN GENERAL PRACTICE**—By Robert Pratt McCombs, Lieutenant, Medical Corps, United States Naval Reserve; recently instructor in internal medicine for the Statewide Postgraduate Program of the Tennessee State Medical Association. On leave of absence from the staffs of the Pennsylvania Hospital, the Abington Memorial Hospital, and the Jefferson Medical College, Philadelphia. W. B. Saunders Company, Philadelphia, 1943. Price, \$7.00.

**GASTRO-ENTEROLOGY, Volume I, The Esophagus and Stomach**—by Henry L. Bochs, M.D., professor of gastro-enterology, University of Pennsylvania Graduate School of Medicine. W. B. Saunders Company, Philadelphia, 1943.

**NUTRITION AND DIET IN HEALTH AND DISEASE**—By James S. McLester, M.D., professor of medicine, University of Alabama, Birmingham, Alabama. Fourth edition, thoroughly revised. W. B. Saunders Company, Philadelphia, 1943. Price, \$8.00.

**RECONSTRUCTIVE SURGERY OF THE EYELIDS**—By Wendell L. Hughes, M.D., Hempstead, New York. The C. V. Mosby Company, St. Louis, 1943. Price, \$4.00.

**ESSENTIALS OF SYPHILOLOGY**—By Rudolph H. Kampmeier M.D., associate professor of medicine, Vanderbilt University School of Medicine, in charge of the Syphilis Clinic and visiting physician to Vanderbilt University Hospital; with chapters by Alvin E. Keller, M.D., and J. Cyril Peterson, M.D. The J. B. Lippincott Company, Philadelphia, 1943. Price, \$5.00.

**NERVOUS INDIGESTION AND PAIN**—By Walter C. Alvarez, M.D., professor of medicine, University of Minnesota (Mayo Foundation); consultant in the division of medicine, The Mayo Clinic, Rochester, Minnesota. Paul B. Hoeber, Inc., New York, 1943. Price, \$5.00.

**THE MIND OF THE INJURED MAN**—By Joseph L. Fetterman, M.D., assistant clinical professor of nervous diseases, Western Reserve University School of Medicine, Cleveland, Ohio. Industrial Medicine Book Company, Chicago, 1943. Price, \$4.00.

**THE 1942 YEAR BOOK OF GENERAL THERAPEUTICS**—Edited by Oscar W. Bethea, M.D., professor of clinical medicine, Tulane University School of Medicine. The Year Book Publishers, Chicago, 1942. Price, \$3.00.

**THE PRINCIPLES AND PRACTICE OF OBSTETRICS**—By Joseph B. DeLee, M.D., formerly professor of obstetrics and gynecology, emeritus, University of Chicago, consultant in obstetrics, Chicago Lying-in Hospital and Dispensary, consultant in obstetrics, Chicago Maternity Center; and J. P. Greenhill, M.D., attending obstetrician and gynecologist, Michael Reese Hospital, obstetrician and gynecologist, associate staff, Chicago Lying-in Hospital, attending gynecologist, Cook County Hospital, professor of gynecology, Cook County Graduate School of Medicine. Eighth edition, entirely reset. W. B. Saunders Company, Philadelphia, 1943. Price, \$10.00.

**THE ANATOMY OF THE NERVOUS SYSTEM**—By Stephen Walter Ranson, M.D., Ph.D., formerly professor of neurology and director of Neurological Institute, Northwestern University Medical School, Chicago. Seventh edition, revised. W. B. Saunders Company, Philadelphia, 1943. Price, \$6.50.

**METHODS OF TREATMENT**—By Logan Clendening, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals; and Edward H. Hashinger, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals, attending physician, St. Luke's Hospital, Kansas City, Missouri. Eighth Edition. C. V. Mosby Company, St. Louis, 1943. Price, \$10.00.

## BOOK REVIEWS

### NEUROSURGERY AND THORACIC SURGERY MILITARY SURGICAL MANUALS VI

Prepared and edited by the Subcommittee on Neurosurgery and Thoracic Surgery of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. W. B. Saunders Company, Philadelphia, 1943. Price \$2.50.

This, the concluding volume of a series of six, has the dual rôle of presenting two of the most complex phases of surgery and boiling them down to a minimum of reading matter. The problem has been solved to such nicety that, although the material is in practically outline form, every phase of diagnosis or therapy is easily found. Two-thirds of the manual is devoted to the neurosurgical section with chapters as follows: Gunshot and Other Injuries of Spinal Cord; Injuries of Intervertebral Disks in Military Service; Injuries of Peripheral Nerves; and Infections of Nervous System and Its Coverings Arising from Injuries of War. The first chapter has been found to be extremely important, since injuries of the head are frequent in military service, both in combat and in training. The prompt and proper

handling of these cases has had much to do with saving lives. The section on peripheral nerves is one which can be read and reread at leisure, since the enormity of its content cannot be digested in one sitting. This portion is replete with illustrations and diagrams as aids in diagnosis. The presentation of treatment and the all-important postoperative management is given in detail.

The second portion of the manual is divided into four chapters; namely, General Principles Pertaining to Thoracic Injuries; Synopsis of Treatment and Disposition of Thoracic Injuries; Complications and Sequelae of Thoracic Injuries; Operative Surgery. The chapter on treatment is in outline form with sixteen types of wounds covered. This is divided into first aid care and definitive treatment for each lesion considered. The section on operative procedures is, of necessity, brief, but it is replete with diagrammatic illustrations.

This manual should be made available to every medical officer whose military duties involve surgery. The index makes the material readily available when time is short and the urgency great.

D. C. C.



### CHILDREN CAN HELP THEMSELVES

By Marian O. Lerrigo, Ph.D. The Macmillan Company, New York, 1943. Price, \$2.25.

This book is another in a steadily growing series, all of which are based on the fundamental principles of teaching parents what to expect of their normally growing and developing children at different age periods.

In "Children Can Help Themselves" the author approaches the problem in a way which should appeal to many parents. Instead of dealing abstractly with child behavior in general, the experiences of a family are related from the birth of the son through his eleventh year. The ideas expressed seem to be sound and in keeping with modern psychiatric teachings. Emphasis is rightfully placed upon the advantages of managing children so that immature forms of behavior are left behind when the child developmentally is ready for more mature accomplishments.

Books of this type are to be highly recommended to parents who are interested in doing as good a job as they can in preparing their children mentally and physically for the tough years ahead.

L. F. H.

### MEDICAL PARASITOLOGY

By James T. Culbertson, assistant professor of bacteriology, College of Physicians and Surgeons, Columbia University. Columbia University Press, New York, 1942. Price, \$4.25.

World War, operating in a manner unprecedented in history, has transported untold thousands of the armed forces to parts of the world where exposure to malaria and other tropical diseases is a daily occurrence. On their return, many of these men will be dependent on the professional skill of physicians and laboratory workers who through study and experience are familiar with diseases of the Orient.

This book is comprised of Part One, with chapters on infection, epidemiology, natural resistance, diagnosis, specific therapy and prophylaxis, and Part Two, the thirteen chapters of which consider the specific infections caused by the various animal parasites. Subjects of these chapters include amebiasis; the malarias; trematode, cestode and nematode infections; and Arthropoda of medical importance (insects and Arachnids).

The book has several features of special interest. Distributed throughout the text are twenty-one full page plates with photographs and photomicrographs which picture distinctly the microscopic appearance of plasmodia, amebae, parasites, and eggs of parasites.

Schematic drawings show clearly the morphology and minute structure of the different species of amebae, intestinal protozoa, trypanosomes and other organisms.

C. F. J.

### SYNOPSIS OF PATHOLOGY

By W. A. D. Anderson, M.D., assistant professor of pathology, St. Louis University School of Medicine; pathologist St. Mary's Group of Hospitals. The C. V. Mosby Company, St. Louis, 1942. Price \$6.00.

So all-inclusive is the field of pathology that innumerable important subjects must either be sketchily presented or be omitted in the ordinary textbooks of pathology. Consequently, the need of a "synopsis of pathology," that is, the need of a briefer volume than the ordinary textbook is not apparent.

Nevertheless, this book is well written and surprisingly complete. It is well illustrated. It contains a number of useful tables and well chosen references. It is recommended to those who desire a good, inexpensive, concise summary of pathology.

R. F. B.

### COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION

Edited by Richard M. Hewitt, M.D.; A. B. Nevling, M.D.; John R. Miner, Sc.D.; James R. Eckman, A.B.; and M. Katharine Smith, B.A. Volume XXXIV - 1942. W. B. Saunders Company, Philadelphia, 1943. Price, \$11.00.

The 1942 edition of Collected Papers of the Mayo Clinic and the Mayo Foundation, like its predecessors, contains much practical information as well as the latest advances still in the experimental stage.

Chemotherapy again receives prime consideration in general, excellent articles summarizing our present knowledge and pointing out the latest trends. The recently publicized chemotherapeutic agents, penicillin and gramacidin, form the basis of interesting experimental work with the practical application continually being stressed. A full report on promin and its relation to tuberculosis therapy suggests that a new valuable weapon against the great plague may soon emerge.

Numerous, common surgical conditions are discussed from newer aspects. The use of heparin and dicoumarin for postoperative thrombosis and embolism is elucidated in detail. Many other surgical conditions receive consideration, among which are head injuries, chronic empyema, carcinoma of the stomach, lesions of the biliary tract, and ulcerative colitis.

The internist particularly will enjoy the articles on hypertensive heart disease, palendromic rheumatism, the use and abuse of digitalis, and the numerous other subjects of importance.

This book may be highly recommended to all physicians. In its 950 pages there is much to interest the specialist, and it certainly should be of inestimable value to the general practitioner. Profuse illustrations and the easy style of writing enhance the value of an already valuable volume.

J. B. P.

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### INTRATHORACIC TUMORS AS A PROBLEM IN DIAGNOSIS\*

RAYMOND J. HARRINGTON, M.D., Sioux City

Intrathoracic tumors are lesions which occur sufficiently often, and are of such seriousness when they occur, that they should be of interest to all physicians. During the last twenty-five years, more especially the last ten years, the status of intrathoracic tumors has changed from that of a medical curiosity to one of considerable clinical importance. Clinical studies have contributed greatly to an increasing understanding of chest tumors regarding their relative frequency, their curability, and the well established methods now available for the early diagnosis of certain forms. In this connection it is well to recall that from the time of Graham's first pneumonectomy in 1932 to 1939 only 89 pneumonectomies were reported in the literature, with a surgical mortality rate of 63 per cent. Since 1939 several hundred additional pneumonectomies have been reported with a reduction in the mortality rate to about 10 per cent. Furthermore, there are now numerous reports of five to nine year cures where such treatment was used for the commonest type of primary lung tumor, bronchogenic carcinoma. It is also well to bear in mind that there are other diversified intrathoracic tumors, some benign, but practically all potentially malignant, some of which have been successfully treated by surgical extirpation. The incidence of all forms of primary intrathoracic malignant tumors has been variously estimated at 8 to 18 per cent of all cancers, and numerous clinical and autopsy studies rank bronchogenic carcinoma, the commonest of all primary intrathoracic tumors, as second in frequency to cancer occurring in the gastro-intestinal tract. The only hope of cure is in the early recognition and surgical extirpation of mediastinal tumors and pneumonectomy in the case of bronchogenic carcinoma.

The opinion prevails that the medical profession

at large is less familiar with the early diagnosis of primary intrathoracic tumors than similar lesions occurring in other parts of the body. The apparent reason for this indifference is the general feeling that these tumors are a hopeless type of malignancy, many times justly so, principally because of their inaccessible origin and their general lack of definite symptoms or a characteristic symptom complex. Furthermore, there is a general tendency for bronchogenic carcinoma to destroy by early extension and infiltration certain vital mediastinal structures and to metastasize through the blood and lymph streams to near and widespread parts of the body, all of which militates against successful surgical therapy.

The successful clinical approach to the study of intrathoracic tumors is to view all possible types together, because in general they have many common characteristics in symptoms and signs and x-ray and bronchoscopic findings.

It is well known that there is a wide diversity of these intrathoracic tumors, but in general they are classified as those originating in the lungs, in the mediastinum, and those originating from certain elements in the chest wall. By far the most frequent intrathoracic tumor is metastatic malignancy, and the most frequent primary lung tumor is bronchogenic carcinoma. It cannot be sufficiently emphasized, and it is generally agreed, that all primary lung tumors arise from the epithelium of the bronchial walls and rarely, or never, do they arise from the lung parenchyma. The incidence of primary bronchogenic carcinoma has been estimated to be 10 per cent of all cancers. The diagnosis of intrathoracic tumors may result from the rather accidental roentgenographic discovery of a tumor mass within the thorax, or it may be very difficult, necessitating the combined efforts of the clinician, the radiologist, bronchoscopist, and thoracic surgeon. In the vast majority of instances, however, it will result from the alert and thorough efforts of the clinician who has a general knowledge of diseases of the chest, and intrathoracic tumors of all kinds in particular, together with a

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sense of suspicion of the possibility of pulmonary malignancy based upon meager and indefinite symptomatology and physical and x-ray signs. How, then, are the multiple and various forms of intrathoracic tumors to be recognized and what are their outstanding clinical features? Since so much depends on early diagnosis it seems worthwhile to emphasize certain points which appear to be of importance in this regard.

#### BRONCHOGENIC CARCINOMA

Unfortunately, bronchogenic carcinoma cannot be considered as a single pathologic entity. It is generally agreed that primary lung cancer is bronchial in origin; however, there is considerable controversy concerning the various cell types and cell origin. Most authorities agree that the common forms are squamous cell carcinoma, small cell or undifferentiated carcinoma and adenocarcinoma. Squamous cell carcinoma and mixed or small cell carcinoma comprise about 70 to 90 per cent of all types. They arise from the main stem bronchi and are, therefore, rather centrally situated, whereas adenocarcinomata arise from the smaller intralobar bronchial branches near the periphery of the lungs, more commonly in the upper lobes. The squamous cell and mixed cell tumors rather early involve the bronchial lumen causing irritation and bronchial occlusion and subsequent atelectasis, bronchiectasis, bronchitis, and bronchial ulceration with superimposed infection leading to pneumonitis and abscess formation. In general these two types of bronchial carcinoma produce symptoms relatively early, whereas the peripherally situated, but less common, adenocarcinomata are more likely to remain circumscribed. They commonly produce pleural and nerve involvement, however, by their extension through the upper thoracic strait with brachial plexus and sympathetic nerve damage and a resultant Horner's syndrome. Although all types are rapid in growth, the squamous cell type is considered by some to be not only the most common but the most favorable from the standpoint of surgery. They all metastasize early with regional lymph node involvement; however, the adenocarcinomata commonly metastasize through the blood stream to widespread parts of the body in the apparent absence of local pulmonary symptoms, occasionally with damaging results more painful and serious than the primary lesion.

Despite the practical value resulting from such a classification, which tends somewhat to complicate the problem, the matter of prime concern is to determine whether the bronchial pulmonary condition is a malignant tumor or some other form of pulmonary or mediastinal disease. There are those who still contend that a diagnosis of primary lung

cancer cannot be made early enough to permit successful surgical therapy. From the above consideration, however, it is apparent that 75 per cent or more of all primary lung cancers have their origin in the main stem bronchi and are accessible to bronchoscopic visibility if they are recognized early enough by their symptoms and signs and roentgenographic manifestations.

#### SYMPTOMS AND PHYSICAL SIGNS

In a broad sense, the problem in the early diagnosis of bronchogenic carcinoma is very similar to that of carcinoma occurring in other parts of the body. It is based first upon an appreciation of the possibility of primary lung malignancy in all patients complaining of chronic chest symptoms, especially when such symptoms occur in a male individual within the cancer age group. It is an established fact that 80 per cent or more of all bronchogenic carcinomas occur in individuals between forty and seventy years of age, and they are from five to eight times more common in males than females; furthermore, the disease is rather insidious in its onset in about 75 per cent of all cases, although exceptions are not uncommon. The clinical picture varies considerably and the symptoms and findings naturally depend upon a number of variable factors, such as type and location of the growth, bronchial occlusion, atelectasis, secondary infection, and the character and extent of other intrathoracic and extrathoracic complications.

Although it is recognized that symptoms and signs in bronchogenic carcinoma are extremely unreliable, attention should be centered upon those individuals who complain of chronic cough. By virtue of the bronchial origin of primary lung cancer, the most common early complaints are cough, hemoptysis, chest pain, and dyspnea. Cough is noted early in 90 per cent of the cases. It is protracted, harsh, and first productive of a watery, mucoid sputum and later it commonly becomes blood tinged. The cough may be so severe that facial congestion and cyanosis are frequently noted and asthmatic noises may be heard in the chest with a unilateral localization of this finding. Later, when secondary infection may occur, the sputum may become purulent and fever, which earlier has been slight, may become septic in type. Early pain is pleuritic in type and localized; later it may be crushing and severe. Dyspnea is usually moderate and is generally due to bronchial obstruction and pleural effusion. These symptoms are most commonly interpreted as a recurrent influenza, an unresolved pneumonia, a bronchiectasis, or a pulmonary tuberculosis. The average duration of symptoms by the time the patient is hospitalized or by the time the first x-ray examination is made

of the chest is about six and one-half months. It is apparent that the routine use of the chest roentgenogram in the examination of all patients with pulmonary symptoms is indispensable, and only in this way can a presumptive diagnosis of primary lung malignancy be made. A smaller but more important group of intrabronchial malignant tumors, which usually comprise about 20 per cent, may have no or very indefinite respiratory symptoms and are usually first recognized by the accidental discovery on x-ray examination of a fairly well circumscribed tumor mass at the periphery of the lung field. These tumors may also be recognized by early pleural involvement or by the effects of the blood borne metastases in distant parts of the body. As might be expected, most of the patients show weight loss and general symptoms of weakness and fatigue.

It is apparent the symptomatology and the physiologic pulmonary disturbance in primary lung tumors are so bizarre and confusing that only a complete clinical investigation will provide a satisfactory basis for a diagnosis.

Just as there is no definite symptom complex in early bronchial malignancy, there are no distinguishing physical signs. In fact, there may be a complete lack of physical signs of the disease in the chest. When a main bronchus or one of its large branches is occluded, variable signs are produced. There is often diminished entry of air on the affected side of the thorax, although the percussion note may be normal. Pleural effusion is a frequent complication of bronchogenic carcinoma and, contrary to generally accepted opinion, it is more commonly serous than sanguinous in character and may in certain instances be purulent. In this same connection it is well to remember that large effusions of 1,500 cubic centimeters or more may occur without mediastinal displacement.

Symptoms and signs of advanced bronchogenic carcinoma are numerous and in general they are the result of extension and metastasis of the tumor to various parts of the body. The neurologic complications comprise a large and interesting group and may simulate a great variety of neurologic conditions. The commoner types of central nervous system involvement are recurrent laryngeal nerve paralysis, Horner's syndrome, brachial plexus involvement, spinal cord compression myelitis, and brain tumor. So common is brain metastasis that brain surgeons now consider a chest roentgenogram essential to rule out bronchogenic carcinoma as a cause of the intracranial lesion. The nature and the clinical prominence of the various neurologic complications often make it possible for cancer of the lung to assume strange disguises. Spread of pulmonary cancer occurs early to the

regional mediastinal lymph glands; other common sites of metastases are the liver, pleura, contralateral lung, kidneys, adrenal glands, cervical and axillary lymph nodes, and they may even be noted in the subcutaneous structures of the skin. It is the evidence of these metastases which constitutes the most important contraindication to successful surgical therapy by pneumonectomy.

#### ROENTGEN DIAGNOSIS

The importance of roentgenologic examination in the diagnosis of primary lung tumor cannot be overemphasized, and the routine use of the procedure in all patients with any chest symptoms is essential. Frequently the roentgen findings are the first definite evidence of the presence of a tumor. The examination should be so conducted as to give all possible information; both fluoroscopic and roentgenographic studies should be made in inspiration and expiration, and serial studies made if necessary. The roentgenographic appearance will depend upon the location of the tumor, its type, the stage of the disease, and the complications present. The most value of the procedure is in the demonstration of a lesion consistent with the diagnosis of a lung tumor and that bronchoscopic examination will be undertaken if necessary.<sup>3</sup>

The roentgen findings are those of a tumor mass centrally or peripherally situated. The shadow of the mass most commonly is rather centrally situated. It may be fused and about equal in density to that of the adjacent mediastinal structures; the margin is usually irregular and not sharply outlined. It may also grow outward into the lung substance forming a more or less dense mass, fairly well circumscribed, displacing the adjoining bronchi away from the mass, or it may extend into the bronchial lumen causing partial or complete obstruction of the bronchus. The latter type of tumor is difficult to demonstrate roentgenographically.

More frequently, the presence of a tumor is suspected from the bronchial obstruction it causes. In Neuhoff's series of cases studied by x-ray, evidence of atelectasis was noted in 96 per cent by the time the diagnosis was suspected. When bronchial obstruction is partial, air becomes trapped in the bronchus beyond the tumor and its exit is prevented by decrease in the bronchial lumen during expiration, and the area beyond the bronchial plug appears on the film as a localized area of emphysema. If a major bronchus is involved in this manner, there is a shift in the heart and mediastinum away from the affected bronchus during expiration. As the lesion increases in size and the obstruction of the bronchus becomes more com-



plete, one may visualize a rather gauze-like, homogeneous density of the lung corresponding in size and shape to the part of the lung supplied by the occluded bronchus. This is the usual picture of a low grade pneumonitis. A more advanced stage of the same general process, when accompanied by subsequent infection, necrosis, and abscess formation, is represented in the film by a portion of collapsed lung with radiolucent areas representing abscess cavities. The x-ray appearance will vary according to the size of the lung area involved and the length of time it has been present. The lung adjacent to the diseased area is usually bright due to a compensatory emphysema. Removal of the bronchial plug or a resection of an obstructing, benign, bronchial adenoma may result in a return of the lung to its normal appearance. When the disease is far advanced with extensive infiltration and metastasis to the mediastinal lymph nodes, or when there is widespread infection with fluid in the pleural space, the picture may be entirely masked by these secondary manifestations and x-ray examination may be of little value in determining the underlying cause.

It should be emphasized that when one is dealing with a pulmonary tumor mass, serial roentgen studies of the chest over a period of three or four weeks should be made, thereby denoting the progress of bronchial obstruction and atelectasis as well as the changes in the size of the tumor mass. This will add to the probability that one is dealing with bronchogenic carcinoma.

In the case where one may note evidence of a small tumor mass with early signs of bronchial obstruction, intrabronchial injection of iodized oil may be of value in localizing the site and nature of the obstruction, but the evidence obtained is only confirmatory rather than diagnostic. This method is condemned by some because of the possibility of aggravating the pulmonary infection. From the foregoing consideration it is apparent that there are no pathognomonic x-ray signs of bronchogenic carcinoma and one can make only a presumptive diagnosis of the condition. The prognosis and the operability of the tumor cannot be determined by this procedure alone.

#### BRONCHOSCOPIC DIAGNOSIS OF ENDOBRONCHIAL CARCINOMA

There is ample statistical evidence to show that bronchoscopy is the most important single method of diagnosis in primary endobronchial carcinoma.<sup>12</sup> What the roentgenogram of the chest may suggest, bronchoscopy will prove in a high percentage of cases. Thoracic surgeons now rely upon this method not only for the accurate clinical and pathologic diagnosis of bronchial carcinoma, but

also for additional information in determining the plan of treatment. Tumors originating in the main bronchial branches, which comprise about 75 per cent of all bronchial carcinomas, are usually considered the most favorable from the standpoint of surgery, and these tumors are within the field of bronchoscopic visibility. The value of bronchoscopy is dependent also upon the stage of the disease, as well as the location of the tumor. Bronchoscopy performed early in the disease with negative findings does not necessarily rule out carcinoma, and frequently repeated examinations may be necessary to establish the diagnosis. The etiologic factor in most pulmonary lesions becomes apparent after a careful history, physical examination, and complete roentgenographic studies have been secured. In general, bronchoscopic examination is indicated in every patient who is without evidence of obvious widespread metastases. One, furthermore, should bear in mind that the extent of the findings on physical and roentgenographic examination is not a criterion of the extent of the disease, since a tumor mass 2 or 3 centimeters in diameter, located in a main bronchus, may produce atelectasis of the entire lung. Bronchoscopic visualization of the tumor, therefore, gives much more accurate knowledge of its extent than either physical examination or roentgenography.

Various configurations are assumed by the intrabronchial portion of the pulmonary tumors. In general, the gross appearance of the tumor has not been found to be an accurate guide to its histologic classification, except that the pedunculated, sessile types within the bronchial lumen are more likely to be of low grade malignancy. The histologic classification of the biopsied specimen from a bronchus is not as important as the determination of whether or not one is dealing with a malignant lesion. The diagnosis of malignancy, however, provides a satisfactory working basis on which to plan treatment. Although one cannot always be certain, bronchoscopically, that a given lesion is inoperable, various findings, such as local, intrabronchial, direct extension to an unresectable area of the tracheobronchial tree and extensive paratracheal lymph node involvement with fixation of the mediastinal structures, may be noted and the inoperability of the lesion determined.

From the foregoing discussion it is apparent that methods are available to enable one to make an early diagnosis of bronchogenic carcinoma. Examination of the records, however, reveals that only 10 to 15 per cent of such tumors are discovered early enough to permit successful surgical therapy. Although this figure seems incredibly low, it compares favorably with pulmonary tuberculosis in which an early diagnosis is made in only

20 per cent of the cases. It also compares favorably with the early diagnosis of cancer in the gastro-intestinal tract. In this connection it is well to mention the value of exploratory thoracotomy in those patients in whom a presumptive diagnosis of bronchogenic carcinoma has been made, but not verified by bronchoscopic biopsy. Attempts to settle the diagnosis by aspiration biopsy is discouraged by most authorities because, regardless of the outcome of the aspiration, prompt surgical exploration is now recognized as the procedure of choice except where there is gross evidence of extrapulmonary metastases.

In Overholt's series of 127 histologically verified cases of primary carcinoma of the lung,<sup>15</sup> 41 per cent were considered as apparently operable at the time the clinical diagnosis was established, 26 per cent were considered suitable for pneumonectomy at the time of exploratory thoracotomy, and 11 per cent were living and without clinical evidence of metastasis at the time of report made in 1941.

#### BRONCHIAL ADENOMA

The necessity for clinically differentiating bronchial adenoma from other forms of lung tumors with which it is frequently confused has been known since 1932.<sup>16</sup> This form of bronchial tumor is rare compared to the malignant forms of bronchial carcinoma, however, since many years prior to 1932 these tumors were considered as primary bronchial carcinoma but differed in that they occurred in individuals below the usual cancer age, their growth was slow, and they had a tendency to occur more commonly in females. Controversy prevents common agreement regarding their exact cellular origin, but they are usually connected with a large bronchus, and the adenoma grows both endobronchially and extrabronchially, both portions of the growth are well encapsulated and the endobronchial portion is usually pedunculated, causing distention and atrophy of the bronchial wall; its surface is covered by mucous membrane with large blood vessels. These tumors may contain cartilage and bone, and definite cellular diagnosis by biopsy differentiating them from bronchial cancer is difficult. They are, furthermore, characterized by their low growth potential, lack of metastasis, and many times masquerade as pneumonia, bronchiectasis, lung abscess, and empyema. The symptoms do not differ from those of bronchial carcinoma except for their greater tendency to bleed recurrently and the usual evidence of chronic lung suppuration and toxemia secondary to bronchial obstruction and infection. X-ray evidence of either the endobronchial or extrabronchial portion of the tumor is usually not demonstrable, and the x-ray signs noted are usually those

found in bronchial carcinoma. Bronchography may reveal a filling defect or a bronchial obstruction. The bronchoscopic findings are those of a polypoid mass, the surface of which is variable in color, covered with mucosa in which there are large blood vessels. The picture is sufficiently distinctive to differentiate it from primary bronchial carcinoma.

#### METASTATIC MALIGNANCY OF THE LUNGS

Now that primary bronchogenic carcinoma is potentially a curable disease, the necessity of accurately differentiating primary from metastatic pulmonary malignancy is apparent. That the lungs are the "great filter" for circulating malignant cell emboli, originating in various parts of the body, is well known. Cotton<sup>14</sup> states that 30 per cent of malignant growths, considered collectively, cause death by pulmonary metastasis when originating in organs not drained by the portal system. The difficulty usually encountered in reading chest roentgen films is not in recognition of the usual multiple, metastatic lesions found in the lungs, but it is in the differentiation of a "solitary" metastatic pulmonary lesion from a primary lung cancer originating in the bronchial branches at the periphery of the lung. Such a diagnosis must be based upon a summation of all clinical data resulting from a thorough search for the primary site of carcinoma elsewhere and not upon x-ray appearance of the pulmonary lesions. Furthermore, presumptive evidence of pulmonary malignancy based upon clinical data is of little value; both primary and metastatic malignancy may cause chest pain, cough, and hemoptysis, and both may be negative upon bronchoscopic examination. Metastatic pulmonary lesions are usually multiple. They are more commonly situated in the lower lung fields and produce shadows in chest roentgenograms, many of which are rather characteristic of the metastasizing tumor.

#### MEDIASTINAL TUMORS

Mediastinal tumors are relatively uncommon. They are widely diversified in their anatomic origin and pathologic structure. These tumors are of importance because of their inevitable fatal outcome if not properly diagnosed and if adequate surgical treatment is not carried out in those cases amenable to surgical therapy. It is true that only a comparatively small group of these tumors, both benign and malignant, can be successfully treated by surgical extirpation, but sufficient successes have been attained by such treatment to justify their thorough study and understanding. Furthermore, certain of these tumors, particularly those of lymph gland origin, are amenable only to roent-



gen therapy. Early, accurate clinical diagnosis, therefore, is imperative.

The most common mediastinal tumors include dermoid cysts and teratomas, the cysts of endodermal and mesodermal origin, the cystic lymphangiomas, and the echinococcus cysts. The connective tissue tumors include fibromas, lipomas, leiomyomas, chondromas, and chondrosarcomas. Neurogenic tumors include neurofibromas, ganglioneuromas, neuroblastomas, and the benign and malignant tumors of the thymus gland. The primary tumors of the mediastinal lymph nodes include lymphosarcoma, Hodgkin's disease, and the leukemias. There are also the primary and secondary sarcomas and carcinomas, intrathoracic goiters, and aneurysm of the large vessels.

In the clinical and x-ray studies of these tumors, attempts are made to divide them according to their location within the mediastinum and also to the anatomic structure which may have given rise to the abnormality in question. Confronted with this problem, one must rely upon the kind of a shadow in the roentgenogram cast by the various mediastinal tumors and also the predilection of certain tumors for certain locations in the mediastinum. Experience further shows that a shadow clearly defined and circumscribed in an x-ray film is most often cast by a benign tumor, although it does not rule out such lesions as ganglioneuromas and teratomas which have undergone malignant degeneration or lesions other than tumor, such as a mediastinal abscess or nonpulsating aneurysms. Again the diffuse, poorly defined, irregular shadow is most often associated with malignant conditions, a finding to which there also may be exceptions. Less important than the x-ray appearance of the tumor is the diagnostic information obtained from the particular location of the lesion. Tumors in the posterior mediastinum are more liable to be the ganglioneuromas or other neurogenic neoplasms, or the various forms of chondroma arising from the costovertebral articulation. The dermoid cysts and teratomas practically always occur in the anterior mediastinum. Frequently, however, such distinctions have no meaning and such criteria are not infallible.

Statistical information is not available to enable one to state accurately which of these tumors is most common, but one gathers the impression that tumors of the lymphoma group rank first and teratoid tumors are twice as common as any other type.

Mediastinal tumors which can successfully be removed surgically are teratomas and dermoid cysts, the various other mediastinal cysts, the intrathoracic goiters, the benign connective tissue tumors including those derived from cartilage, the benign tumors of neurogenic origin, the benign

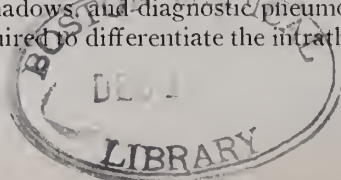
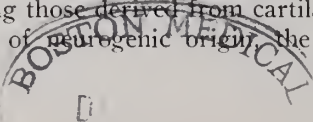
tumors of the thymus gland, and certain primary sarcomas. The primary malignant tumors of the mediastinal lymph nodes and malignant thymomas are unsatisfactory from the viewpoint of surgery and are best treated by x-ray therapy.

#### SYMPTOMS AND SIGNS

Occasionally a mediastinal tumor may be asymptomatic and is discovered during the course of routine examination. When such a tumor gives rise to symptoms, it may be one of two kinds, general or local. By general symptoms we mean the common symptoms of pain in the chest, cough, dyspnea, and cyanosis. They are the result of mediastinal compression and vary with the size and location of the tumor and degree of compression of various mediastinal structures. The pain may be dull, aching or boring as in aneurysms, or sharp like that in pleurisy. It may be local or referred, as in the case of hourglass tumors of the spine where symptoms provoked may be predominantly those of involvement of the spinal cord, with back pain and paresis or paralysis of the extremities with altered sensations and reflexes. The cough may be irritative, absent, or distressing and may be productive of mucoid material, or it may be associated with bloody sputum with expectoration of pus or hair. Dyspnea is a variable symptom, but at some stage of the disease it manifests itself with great regularity. In addition to those general manifestations of mediastinal tumors, there may be other localizing signs, such as dilatation of the veins of the neck and front of the chest, inequality of the pupils or a definite Horner's syndrome, hoarseness due to pressure upon the recurrent laryngeal nerve, and dysphagia due to pressure and dislocation of the esophagus. These symptoms are due largely to mechanical causes and death may result from mediastinal compression and its effects upon the respiration and circulation. A lack of prominent symptoms in mediastinal tumor, although a fortunate circumstance, does not necessarily imply that the lesion is quiescent, that it may not undergo malignant degeneration or eventually cause death if not removed.

#### DIAGNOSTIC ROENTGEN ASPECTS

Thorough study of the mediastinum should include both fluoroscopic examination and films. The type and number of films may best be determined after primary fluoroscopy. Generally posterior-anterior and lateral views comprise a minimum; oblique films may be of value in some cases. When the location of the lesion is in doubt, the esophagus should be investigated with opaque material. The spine and sternum may be the source of abnormal shadows and diagnostic pneumothorax may be required to differentiate the intrathoracic tumor from



those originating on the thoracic structures. Visualization of the mediastinal structures depends also upon the technic of the examination and particularly upon the penetration used.

#### PRIMARY TUMORS OF THE MEDIASTINUM

Primary tumors of the mediastinum are extremely uncommon. In the benign group, the roentgen appearance is that of a single, sharply outlined, round mass. The commonest lesion in this group is probably dermoid cyst or teratoma, usually called teratoid tumor. These tumors are large, well defined masses arising in the anterior mediastinum, and they may grow very large with practically no symptoms. Calcification may be present in the wall, and partially or completely formed teeth and irregular bone formation may be seen in overpenetrated films. The age of the patient is also an important factor, the majority of teratoid tumors being found in young adults.

Neoplasms of primary nerve origin usually arise in the posterior mediastinum and take origin from any element of nerve tissue. They may thereby be precisely classified as ganglioneuromas, neurofibromas, and some employ the term perineural fibroblastoma; all are considered potentially malignant. Those originating from the spinal or sympathetic nerves may commonly involve the vertebral canal as well as the posterior mediastinum. Roentgenographically, they usually lie in the posterior mediastinal gutter and form rounded mass shadows. Cystic tumors may originate from respiratory epithelium or the pericardial sac and are given a variety of names. Chondromas and osteochondromas commonly arise from the anterior chest wall in the neighborhood of the costochondral junctions and may present themselves into the anterior mediastinum; they may also arise from the costovertebral structures and grow into the posterior mediastinum.

#### TUMORS OF THE MEDIASTINAL LYMPH NODES

Primary malignant tumors of the mediastinal lymph nodes are usually grouped together under the term lymphoblastoma. The node or nodes involved produce mass shadows corresponding to their location. The outer borders are sharp, nodular, or lobulated, usually having the density of the cardiovascular shadow. Involvement is usually bilateral but asymmetrical, and symptoms generally are present in proportion to the degree of involvement. In lymphosarcoma there is a tendency to a large localized mass, often unilateral. Lymphatic leukemia simulates Hodgkin's disease roentgenographically and the diagnosis depends upon blood examination. Metastatic involvement of lymph nodes may be a part of a generalized

lymphogenous spread to the lungs and may be seen in primary tumor.

It is impossible, as a rule, to distinguish these lesions one from another on roentgen examination, and even at necropsy absolute differentiation cannot always be made. Thus, the general use of the term lymphoblastoma to include this group of diseases will be found satisfactory.

#### TUMORS OF THE THYMUS GLAND

Classification and interpretation of tumors of the thymus gland has been a subject of much controversy. Lymphosarcoma and thymoma are the most common forms of thymic tumors. These tumors usually occupy the anterior mediastinum and surround and compress the trachea and great vessels. A definite clinical diagnosis is difficult during life; their course is rapid and seldom does a patient live six months following the onset of symptoms.

#### TUMORS OF THE SUBSTERNAL AND MEDIASTINAL THYROID GLANDS

Tumors of the thyroid gland may be partially or totally intrathoracic. In the great majority of cases, however, involvement of the thyroid tissue in the neck is evident and usually indicates the true nature of the lesion. Total or complete thoracic goiter may occur without cervical goiter, but it is rare. Involvement of the substernal thyroid may be recognized by its upward movement in swallowing and by the signs of compression or displacement of the trachea and other surrounding structures.

#### CARDIAC AND VASCULAR LESIONS

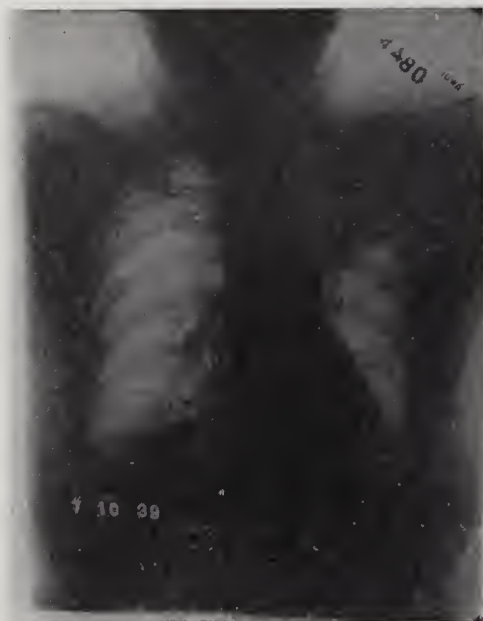
Aortic aneurysm belongs properly under diseases of the cardiovascular system and mention of it will be made here only because of the frequent confusion or aneurysm and mediastinal tumor. In the majority of cases differentiation can be made without difficulty if all factors, including clinical, are taken into consideration. The diagnosis depends upon a mass continuous with the aortic shadow which cannot be separated by rotation of the patient, the expansile type of pulsation noted on fluoroscopy, calcification in the wall of the aneurysm continuous with that in the aortic wall, pressure and erosion of the sternum or vertebrae, displacement of the esophagus and clinical and serologic evidence of syphilis.<sup>18</sup> Of all these, the only one which is present constantly is the first. Uncommon right-sided aortic arch and aneurysms of the innominate artery are less frequently encountered.

The following case reports will serve to illustrate certain points outlined in the previous discus-



sion concerning the diagnosis of both bronchogenic carcinoma and mediastinal tumors:

Case 1: The patient, Mrs. J. F. P., sixty-five years of age, first came for examination in July, 1939, stating that she had developed a severe lung cold in November, 1938, from which she had failed to recover. Her presenting complaints on examination were a rather continuous, band-like constricting pain through the lower chest below both breasts which was worse at night while lying down and unrelated to exertion; and an intractable, harsh, bronchial cough productive of a thick, tenacious, mucoid sputum. In September, 1939, she noticed a hoarseness for the first time. Routine physical



Case 1. Mrs. J. F. P.

examination was negative except for the chest. There was a dullness on percussion of the left apex, front and back, with narrowing of Krönig's isthmus; there was a suppression of the breath sounds throughout this area. The radiologist's report of the first chest film in July, 1939, was that of a non-specific atelectasis of the upper lobe of the left lung. The patient was advised to consult a thoracic surgeon in November, 1939, and a diagnosis of an inoperable, bronchogenic carcinoma of the upper lobe of the left lung was confirmed. This patient died ten months later. Autopsy confirmed the clinical diagnosis.

Case 2: The patient, Mr. F. B., forty-eight years of age, was first examined January 21, 1943. His present illness began in July, 1942. The onset was insidious with symptoms of cough, chills, fever, and malaise. In October he became worse; his cough was intractable, productive of mucopurulent sputum, and accompanied by a severe, sharp pleural type of pain throughout the right lower chest, laterally and posteriorly. About December 10 the sputum



Case 2. Mr. F. B.

became streaked with bright red blood, and he also had had a septic temperature, progressive weakness, and a weight loss of thirty pounds in the last few months. X-ray examination of the chest on January 21, 1943, revealed a pneumonitis of the lower lobe of the right lung. Bronchoscopic examination was done first January 22, 1943, with negative findings. A diagnosis of a probable bronchogenic carci-



Case 2. Mr. F. B.

noma was made from the history and x-ray findings, and the patient was referred to a thoracic surgeon. Bronchoscopic examination was repeated January 27, 1943, and an adenocarcinoma, grade 3, was found in the right lower lobe bronchus. On February 9 a transpleural exploration of the carcinoma of the right lung was done. There was a moderate pleural effusion. The carcinoma involved both the lower and middle lobes of the right lung as well as the pericardium and the walls of the great vessels. There was a fixed mass at the hilum. The condition was declared inoperable and the wound closed. Convalescence has been uneventful to date.

Case 3: The patient, Mr. R. M., forty-four years of age, entered the hospital March 10, 1941, complaining of cough, pain throughout the right chest, feverishness, and general weakness. The patient first became acutely ill with what appeared to be "flu" about three weeks prior to admission to the hospital. He was not especially sick until about one week prior to his hospital admission when he had a chill, high fever, more severe cough, and pain in the right chest. X-ray examination of the chest March 11, 1941, revealed what was thought to be a pneumonic involvement of the upper half of the right lung. From March 10 to 22 his temperature



Case 3. Mr. R. M.

to the right chest were begun April 9, 1941, and he raised bloody sputum for the first time April 13. He visited a thoracic surgeon April 14, 1941, and the diagnosis of an inoperable, primary lung tumor was confirmed. At that time he was paralyzed from the waist down. His condition rapidly became worse and he died April 30, 1941.

Final Diagnosis: Primary bronchogenic carcinoma of the upper lobe of the right lung with metastasis to the spine and compression of the cord. (History and x-ray films loaned by Dr. W. M. Krigten.)

Case 4: The patient, Mr. W. R. C., sixty years of age, was first examined January 13, 1943, complaining of cough, expectoration of mucopurulent sputum, feverishness, general weakness, and vague pleurisy pains throughout the right chest. Although he had not felt well since about June, 1942, he had worked daily until the onset of his present illness. In June, 1942, he had a rather harsh bronchial cough and he was dyspneic. The physician noted evidence of a cardiac irregularity. From June, 1942, until the onset of his present illness, January 1, 1943, he had taken irregular doses of digitalis; however, he failed in strength and lost considerable weight. His first chest roentgenogram in January, 1943, revealed a well circumscribed area of consolidation arising from the right hilum, extending well out toward the lung periphery. These findings were considered strongly suggestive of a primary bronchial malignancy. Lung aspiration biopsy was attempted but was unsuccessful. Bronchoscopic examination was done January 15, 1943, revealing a bronchostenosis. Bronchography revealed an obstructed right main bronchus with a



Case 3. Mr. R. M.

gradually returned to normal and he was dismissed from the hospital much improved. He was readmitted to the hospital April 7, again complaining of cough, intermittent fever, and chest pain. Another x-ray April 7 revealed a large nodular tumor mass extending from the right hilum into the upper lobe of the right lung, which was thought to be a primary malignant lung tumor. X-ray therapy treatments





Case 4. Mr. W. R. C.

definite filling defect suggesting a primary bronchial tumor. In March, 1943, a transpleural exploration of the pulmonary lesion of the right lung was completed and the diagnosis of an inoperable bronchogenic carcinoma was confirmed. The patient died April 1, 1943. (History and x-ray films loaned by Dr. W. Z. Earl.)

Case 5: The patient, Mr. F. K., fifty-six years of

age, became rather suddenly ill in December, 1937, with a chest cold, following which he continued to have a harsh, nonproductive cough. The first week in January, 1938, he noticed dyspnea, moderate dysphagia, and hoarseness. By March, 1938, he



Case 5. Mr. F. K.

suffered from a severe, tearing type of pain through the upper left chest aggravated by exertion and coughing. He had also complained of a severe back pain in the lower lumbar region radiating into the right leg for the past five or six months. A roentgenogram of his chest was made in March, 1938, which



Case 4. Mr. W. R. C.



Case 5. Mr. F. K.

revealed a fairly well circumscribed tumor mass in the left hilar region with a partial atelectasis of the upper lobe of the left lung. Examination was that of a 200 pound male who was obviously ill; his temperature was 100 degrees; and he coughed incessantly. There were no palpable cervical or axillary glands, no abnormal vascular signs in the neck vessels. Chest expansion was symmetrical. There was a dullness on percussion through the left upper chest, anteriorly, in the second and third inter-spaces. Breath sounds were absent throughout this region of the chest. The heart was normal in size, no murmurs. The blood pressure was 110/90. The reflexes were normal; there was a weakness and muscle atrophy of the right leg. Blood and spinal fluid serology was negative. The patient was admitted to the University Hospital at Iowa City in June, 1938, where he died later. Autopsy revealed a bronchogenic carcinoma of the left lung with metastasis to the mediastinal and tracheobronchial lymph glands and to the transverse process and body of the fourth lumbar vertebra.



Case 6. Mr. H. M.

area of density in the lower right chest which was diagnosed by the radiologist as an encysted empyema. Aspiration biopsy was attempted and was unsuccessful. Bronchoscopic examination was done March 7, revealing a stenosis of the lower right main bronchus, but no evidence of an endobronchial tumor. A bronchogram revealed a displacement of the terminal bronchioles away from and around the tumor mass. After this procedure the radiologist made a diagnosis of a primary lung tumor. Physical examination revealed some dullness in the lower right chest, anteriorly, with accompanying absence of breath sounds. The optic discs were normal; the Romberg's sign was positive; the deep tendon reflexes and Babinski's reflex were all normal. The patient failed rapidly and died March 19. At autopsy there was found a fairly well circumscribed, firm tumor mass in the lower lobe of the right lung with very little evidence of hilar gland metastasis, which proved to be an adenocarcinoma. On examination of the brain, there was found a cystic area of metastatic malignancy about the size of a walnut involving the right lobe of the cerebellum and a smaller metastatic lesion in the right parietal lobe of the brain. (History and x-ray films loaned by Dr. I. C. Vangness.)

Case 7: The patient, Mr. F. P., seventy-two years of age, became ill in December, 1942, with an ordinary lung cold, following which he continued to have a severe intractable bronchial cough, feverishness, a fifteen pound weight loss with general weakness and loss of strength. When he came for examination February 3, 1943, he was coughing rather continuously, expectorating large quantities of clear, mucoid sputum, which had been streaked with blood



Case 6. Mr. H. M.

Case 6: The patient, Mr. H. M., fifty-six years of age, became rather suddenly ill February 15, 1943, complaining of general weakness, vertigo with disturbance in station and gait, and vomiting. On February 1 while at work, he was struck on the right side of his head by a falling crate, but suffered no apparent serious consequences at the time. His condition grew steadily worse and he entered the hospital March 3 with the additional complaints of a cough and expectoration of bloody sputum. This sign had not been noticed previously. A routine chest roentgenogram revealed a well circumscribed





Case 7. Mr. F. P.

for several days; his temperature had averaged 1 to 2 degrees above normal since the onset of the illness. Past history was negative for previous pulmonary difficulty. He had had a duodenal ulcer in 1929 but had been free from dyspepsia in recent years. Examination was that of a tall, asthenic, male subject,



Case 7. Mr. F. P.

poorly nourished and rather cachectic in appearance. Routine physical examination was essentially negative except for dullness in the right lung base, posteriorly, and diminished breath sounds throughout the lower right lung. Blood Wassermann and sputum studies were negative. Bronchoscopic examination was made February 4, 1943, and revealed no evidence of intra or extrabronchial pathology. X-ray examination of the chest revealed an irregular area of consolidation extending from the right hilum into the lower right lung. The patient's condition remained unchanged. X-ray therapy to the involved area of the right lung was begun February 16, following which there was a striking improvement in the cough and his general condition. A total of 2,000 roentgen units were given. Progress x-ray examination of the chest revealed an improvement in the previous pulmonary findings. Although the clinical history, physical and x-ray findings strongly suggest a possible primary lung malignancy, there is still inconclusive evidence to substantiate such a diagnosis.



Case 8. Mrs. F. A. H.

Case 8: The patient, Mrs. F. A. H., housewife, fifty-eight years of age, came for examination August 3, 1939, with the major complaint of a dull, rather continuous pain beneath the upper third of the sternum of one month's duration. A suffocating type of breathlessness and general weakness were also noted on moderate exertion. Routine physical examination was essentially negative except for an elevation of the blood pressure, which was 184/110. X-ray examination of the chest revealed a well circumscribed mediastinal tumor mass projecting anteriorly into the right chest. The patient had a series of x-ray therapy treatments in November,



Case 8. Mrs. F. A. H.

1939, with no subsequent change in the size of the tumor. In May, 1940, she developed a cough for the first time with hemoptysis, expectorating several mouthfuls of bright red blood. Following this she improved markedly. In October, 1942, on routine fluoroscopic examination and x-ray check-up, it was noted for the first time that the tumor mass had increased considerably in size. She was advised to consult a thoracic surgeon who made a preoperative diagnosis of a possible teratoid type of mediastinal

tumor. At operation February 10, 1943, a large anterior mediastinal cyst, measuring 10 centimeters in diameter and containing about 800 cubic centimeters of cloudy fluid, was removed. It was densely adherent to the pericardium and to the anterior chest wall. The cyst wall contained connective tissue and remnants of thymic tissue. Convalescence has been uneventful to date.

Case 9: The patient, Mr. F. V., forty-two years of age, was first examined July 2, 1937. His only complaint at the time was a gaseous dyspepsia. A large mediastinal tumor mass was discovered during the course of a fluoroscopic examination of the chest and stomach. The tumor was apparently silent and



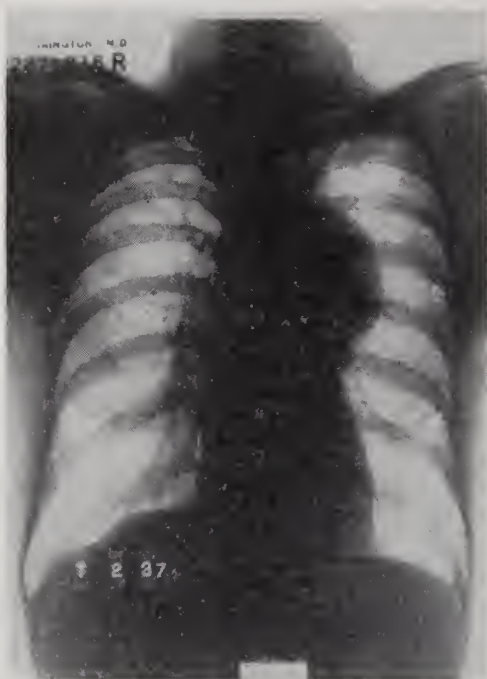
Case 9. Mr. F. V.

asymptomatic. Nothing additional was discovered in the examination to indicate poor health. There were no abnormal cardiac or circulatory findings. The blood and spinal fluid Kahn and Kohlmer tests were negative. The consensus prevailed that the mass was an aneurysm, a mediastinal cyst, or a teratoid tumor situated in the anterior mediastinum. He was kept under continuous observation and periodic fluoroscopic and radiographic studies were made from time to time. He had no further complaints except for vague substernal discomfort. He worked steadily managing a store. In September, 1940, x-ray studies revealed the most pronounced increase in the size of the mass which had occurred during the preceding three years. Recently he had also noticed some dysphagia, cough, and pressure discomfort through the chest when lying on his left side. He was advised to consult a chest surgeon who thought the mass was a teratoma and recommended surgical exploration. A consulting internist,



Case 8. Mrs. F. A. H.





Case 9. Mr. F. V.

however, thought it might be an aneurysm of the aorta. He had a thoracotomy November 4, 1940, and a large vascular tumor was removed from the anterior mediastinum. It was densely adherent to the pleura of both lungs, pericardium and large vessels. After removal of the tumor, the specimen was still thought to be grossly a teratoma with probable malignant changes. Microscopic study of the tissue, however, revealed a lymphosarcoma. The



Case 9. Mr. F. V.

prognosis was unfavorable, although convalescence was uneventful. The patient died from recurrent growth of the tumor and metastases in July, 1942.

Case 10: The patient, Mr. P. P., sixty years of age, came for examination in February, 1942, com-



Case 10. Mr. P. P.

plaining of a throbbing, thumping, upper abdominal discomfort of one month's duration. He had no cardiac symptoms, no dyspepsia, no chest pain or pain in the back. The past history was irrelevant. Examination was that of a 200 pound male subject. The pupils were equal and reacted to light and accommodation. There was no appreciable evidence of



Case 10. Mr. P. P.

cardiac enlargement; no murmurs, no abnormal percussion or auscultatory signs in the examination of the chest. The heart rate and rhythm were normal, the blood pressure 145/90. The patient was advised to have an x-ray examination of his stomach. Fluoroscopic examination of the chest revealed a large mediastinal tumor mass extending into the left chest involving the thoracic aorta. This tumor mass had the general fluoroscopic and radiographic characteristics of an aneurysm involving the transverse and descending thoracic aorta. Blood Wassermann test later revealed a 4 plus reaction. (History and x-ray films loaned by Dr. Wm. E. Cody.)

#### CONCLUSION

The clinical features of the more common forms of intrathoracic tumors have been discussed. Six cases of bronchogenic carcinoma were presented. In only one case was the histologic diagnosis established preoperatively or prior to autopsy. Three cases of bronchogenic carcinoma revealed fairly well circumscribed pulmonary masses at the time of the first x-ray examination of the chest. The other three cases revealed x-ray evidence of bronchial obstruction and atelectasis at the time of the first x-ray examination. Three of the six cases of bronchogenic carcinoma had definite neurologic evidence of central nervous system involvement. Two cases of mediastinal tumor were presented, neither of which was accurately diagnosed preoperatively; one proved to be a benign mediastinal cyst and the other a lymphosarcoma, and both were removed surgically. One case of a nonspecific pneumonitis clinically resembling bronchogenic carcinoma and another case with a large asymptomatic aortic aneurysm were also presented.

#### BIBLIOGRAPHY

1. White, T. J., Cohen, S., Gnassi, A. M., and Price, P.: Primary carcinoma of bronchus; analysis of 56 cases. *Jour. Am. Med. Assn.*, cxviii:862-865 (March 14) 1942.
2. Maxwell, J., and Nicholson, W. A.: Diagnosis of bronchial carcinoma. *St. Barth. Hosp. Rep.*, lxiii:101-116, 1930.
3. Alexander, J.: Circumscribed intrathoracic neoplasms. *Jour. Am. Med. Assn.*, cxix:395-397 (May 30) 1942.
4. Gebauer, P. W.: Differentiation of bronchogenic carcinoma. *Jour. Thoracic Surg.*, x:373-400 (April) 1941.
5. Holmes, G. W.: Carcinoma of bronchus. *New England Jour. Med.*, ccxxvii:503-508 (October 1) 1942.
6. Davidson, M.: *Cancer of the Lung and Other Intrathoracic Tumors*. William Wood and Company, New York, 1930.
7. Wessler, H., and Rabin, C. B.: Neurological manifestations of carcinoma of lung. *Jour. Mt. Sinai Hosp.*, ix:850-858 (November-December) 1942.
8. Adams, R.: Carcinoma of lung. *S. Clin. North America*, xxii:703-707 (June) 1942.
9. Robertson, C. K.: Primary new growths of lung. *Edinburgh Med. Jour.*, xlix:110-118 (February) 1942.
10. Olin, H. A., and Elliott, C. A.: Primary bronchogenic carcinoma of lung; clinical and roentgen study of 38 cases over period of 12 years. *Am. Jour. Surg.*, liv:614-628 (December) 1941.
11. Oschner, A., and De Bakey, M.: Significance of metastasis in primary carcinoma of lung; report of 2 cases with unusual site of metastasis. *Jour. Thoracic Surg.*, xi:357-387 (April) 1942.
12. Betts, R. H.: Carcinoma of lung; bronchoscopic aspects. *New England Jour. Med.*, ccxxv:519-525 (October 2) 1941.
13. Blades, B.: Relative frequency and site of predilection of intrathoracic tumors. *Am. Jour. Surg.*, liv:139-148 (October) 1941.
14. Cotton, B. H.: Differential diagnosis of primary and metastatic malignancy of lung. *Am. Jour. Surg.*, liv:173-178 (October) 1941.
15. Overholt, R. H.: Carcinoma of lung as surgical problem. *Am. Jour. Surg.*, liv:161-172 (October) 1941.

16. Brunn, H., and Goldman, A.: Bronchial adenoma. *Am. Jour. Surg.*, liv:179-192 (October) 1941.

17. Heuer, G. J., and Andrus, W. DeW.: Surgery of mediastinal tumors. *Am. Jour. Surg.*, l:146-224 (October) 1940.

18. Paul, L. W.: Diseases of mediastinum and associated conditions; refresher course. *Radiology*, xl:10-41 (January) 1943.

#### Discussion

Dr. Benjamin F. Wolverton, Cedar Rapids: I hope everyone will read Dr. Harrington's paper when it is published in the Journal. A month ago he was kind enough to send me a copy of his original manuscript, of which his presentation today is an abridgment. The original paper, although somewhat longer, is crammed with valuable information about intrathoracic tumors.

I shall not attempt to amplify what he has said; he has covered the subject thoroughly. To illustrate the protean manifestations of intrathoracic tumors, I want to mention briefly a patient I saw a couple of years ago. A man forty-four years of age was referred to me by an otolaryngologist because of pain in the left side of his face, particularly in the left side of his nose. I had not the faintest idea what might be wrong with the man, but felt that all I could do was to give him as careful an examination as I could in the hope of stumbling onto something. The otolaryngologist had ruled out sinus disease and other abnormalities which came within his domain.

In doing a routine physical examination, I noticed a narrow strip of dullness at the left lung base posteriorly. The lower limit of lung resonance was as much higher on the left side as it should have been on the right. Fluoroscopy revealed there was a small amount of fluid in the left pleural cavity. Aspiration of his left chest produced about an ounce of blood-tinged fluid. On staining the sediment from this fluid with Wright's stain, a large number of large, polyhedral cells with pale staining nuclei were found. Many of these cells contained mitotic figures. I made a tentative diagnosis of endothelioma of the pleura. The pleural effusion increased and he eventually died.

The pathologic diagnosis, however, was bronchogenic carcinoma, in spite of the fact that at autopsy the tumor tissue corresponded anatomically to the visceral and parietal pleurae. In this case, therefore, there were no symptoms whatever referable to the thorax. He developed a Horner's syndrome on the left soon after I saw him, so that the pain evidently was referred to his face by way of the sympathetic system.

There is one group of cases which worries me a good deal. I happen to be one of those doctors who owns an electrocardiograph, and every year I have referred to me many people who have some type of chest pain. It seems that the patients are told to have an electrocardiogram which, like the newsreel camera, "sees all, knows all and tells all." As a matter of fact, in many instances the procedure becomes one of trying to give an opinion whether the chest pain is cardiac or noncardiac in origin and let it go at that. I cannot help but believe that that type of an examination is very inadequate. It is quite possible that every year a number of intrathoracic tumors slip past which would be caught if the



patients were sent for a diagnostic examination rather than merely a cardiac examination.

I think that Dr. Harrington's chief purpose in writing this paper is to increase our suspicion of intrathoracic tumors, lower the threshold of our suspicion. I think if we all read his paper carefully and study it in its entirety, his purpose will be accomplished.

Dr. Albert A. Schultz, Fort Dodge: This fine presentation by Dr. Harrington is timely because he has conclusively demonstrated that we have a long way to go if the problem of lung malignancy is going to be at least partially solved. All of the cases of bronchogenic carcinoma reported today were too far advanced at the time of diagnosis for curative surgery. This is the usual story. I have seen five cases of bronchogenic carcinoma in the last eighteen months and all of the patients have succumbed. A diagnosis is of no value to our patient unless it can be made early enough to offer him a cure or at least a comfortable prolongation of life. It seems to me that this paper should stimulate in all of us a desire to ferret out these cases earlier and get a larger per cent of them to the chest surgeon before inoperable manifestations have appeared. This can be done, because it is being done in some of the larger clinics.

Overholt and Rumel, in 1940, reported a group of seventy-five cases of lung malignancy and in twenty-one of these cases lung resection was carried out. In eighteen of these twenty-one patients operated upon there was no evidence of metastasis or extension of the tumor at the time of operation. Lobectomy was done in four cases and two of the patients were found to have metastases, one died as a result of operation and the fourth was well sixteen months after operation. Pneumonectomy was done for seventeen patients. Six patients died within two months after operation and were considered operative deaths. Three patients died after making an operative recovery. Significantly, only one patient succumbed six months after operation as a result of definite recurrence of malignant disease. Another patient died a year after operation as a result of a psychosis and postmortem examination revealed no evidence of a malignant growth. A third patient died two years after operation and the cause was not determined. However, three and a half months before his death, he had no demonstrable evidence of a recurrence of malignant growth. Eight out of seventeen patients, treated by pneumonectomy for primary lung cancer, were living and well at the time the report was made. The periods of survival ranged from five years and four months to two years, ten and a half months. Such reports as these should encourage us all to become more familiar with the early diagnosis of bronchogenic carcinoma.

There are several factors which prevent early diagnosis in these cases. First, all too frequently the patient does not seek medical advice until it is too late. This is just a part of the general cancer problem and can be solved only through education of the public by all methods available. It seems that

one word expresses best the reason for the lack of early diagnosis, and that is procrastination. The patient procrastinates and the family physician procrastinates. We must become more cancer conscious. In analyzing chest complaints in people beyond middle age we must think of cancer first, not last. We must realize that in the large majority of bronchogenic carcinomata, subjective signs antedate objective signs for a considerable period of time. A small carcinoma in a main stem bronchus does not produce physical or roentgenologic signs until partial or complete occlusion of the bronchus has occurred. It is obvious, then, that a presumptive diagnosis of carcinoma can be made from history alone. When we are confronted with a patient, most commonly a male, in the cancer age who has had no chronic lung condition in the past but has developed a persistent, dry, irritative cough which gradually became productive of a mucoid sputum and later became thicker and blood streaked, and if these findings are associated with no positive x-ray findings or physical signs of other pulmonary lesions, then the diagnosis is cancer until proved otherwise. Dr. Harrington has stated that 75 per cent of bronchogenic carcinomata originate in a main bronchus and, therefore, 75 per cent are accessible to bronchoscopic visualization and can be diagnosed before bronchial occlusion has developed or progressed very far. It is important that we dismiss the idea that bronchoscopy is such a serious procedure and refer these patients to an expert bronchoscopist, the only person who can make an early positive diagnosis; and not until such a time when bronchoscopy is done early on more of these patients will the mortality rate from this disease be substantially reduced. These cases, however, are not hopeless even if they are not diagnosed until bronchial occlusion with emphysema or atelectasis has occurred, because a small tumor which has not metastasized can cause extensive roentgenologic and physical signs of atelectasis.

In all cases, early or otherwise, the sputum should be examined repeatedly for abnormal cells, foreign to normal sputum, because tumor cells not infrequently are found early in the disease. In one of my cases a diagnosis was not made until a piece of tissue was expectorated, which proved on pathologic examination to be carcinomatous.

In those cases which have progressed to the point of bronchial occlusion the blood sedimentation rate is always high and remains high, and in many cases it is high even early in the disease with minimal physical findings.

In conclusion, I should like to say that lung carcinoma should occupy a prominent place in the diagnostic horizon of every general practitioner. A persistent cough in a man of cancer age may have a serious etiology and should not be treated with the much abused sulfonamide drugs until an etiologic diagnosis has been made. A patient with a maximum of subjective chest complaints and a minimum of physical findings should not be dismissed without a thorough survey.

"WELL DEVELOPED, WELL  
NOURISHED"\*

JULIAN D. BOYD, M.D., Iowa City†

Most medical practitioners have equipment adequate for determining the height, weight, and regional circumferences of patients. On the wall of most physicians' offices is a chart setting forth average height and weight values for individuals of various stated ages. The technic of measurement is simple, and the values obtained are fairly accurate. Despite these facilities, little clinical use is made of body measurements in medical diagnosis. This situation is unfortunate, both for the patient and for the physician, because appraisal of physique may be of great assistance in establishing diagnoses and in detecting abnormal states. Certainly with children, and often with adult patients, adequate appraisal cannot be made without exact measurements. Moreover, equivalent information cannot be obtained through casual estimation or from clinical impression.

The record of the physical examination usually takes physique into consideration in a vague and inadequate manner. Often the examination record begins with the statement, "The patient is a well developed, well nourished white male of stated age, et cetera;" yet the remainder of the record commonly will offer no substantiating data, such as the patient's height, weight, or even his exact age. Inasmuch as attention and reliance are placed on recorded values for inconstants such as blood pressure, pulse, respiratory rate, and blood count, it surely is equally valid to obtain and record actual data relating to body physique.

Probably such measurements would be employed more frequently if their significance were more apparent to the examiner. To many persons, the variations frequently observed in the measurements of individuals of similar age seem unimportant or irrelevant. Moreover, many hold the view that body proportions are determined by hereditary factors as long as they fall within normal limits, or by dysfunction of the endocrines if they fall outside the usual range. If a child is short, or fat, or thin, the propensity seems sufficiently explained if a review of direct or of indirect ancestry reveals some person who had somewhat similar physique. This failing, the long suffering endocrines promptly receive the blame without any adequate consideration of common agencies which may affect the physique profoundly, yet never be suspected as causative factors. Recent studies of the growth process have made it possible to evalu-

ate growth with fair exactness, and to distinguish abnormal trends from inborn patterns.

When the child is the object of study, most clinical needs are met if four measurements or values are made a part of each general examination. These four comprise the body height or length, the weight, the greatest circumference of the head, and the exact age. The length offers evidence of the state of development of the skeleton. The weight offers information regarding the total protoplasmic mass, especially the muscle volume and the subcutaneous reservoirs of fat and of fluids. The head measurement usually reflects the rate or degree of growth of the central nervous system; it is especially important during the first two years of life, or subsequently if question arises concerning premature arrest of growth of the brain. The exact age is essential for purposes of appraisal, because the predicted values for different measurements are conditioned by the age of the child. Expression of age in term of years is not sufficiently accurate; it is desirable to know the exact age of the child patient, calculated from the date and year of birth.

Illustrative purposes will be served if attention is restricted to growth in height. Much of the philosophy relating to height may be extended to other measurements as well. Height does not fluctuate as does weight; it is less readily affected by brief episodes of abnormality. In the interpretation of growth in terms of height, however, one should remember that different parts and systems of the body develop according to independent rates and schedules, and that height portrays accurately only the degree of elongation of the skeleton.

The rate of growth of the skeleton, or of other parts of the body, is determined by two sets of factors: those operating from within and those due to outside agencies. Viewed in another manner, we may postulate that the pattern and capacity for growth are determined by genetic factors, established at the time of conception. No person will be able to exceed these inborn capacities. Whether or not he ever attains them will be determined by the balance between favorable and unfavorable factors in his environment. Achievement of the inborn capacity will be favored by ideal conditions of nutrition and of physiologic function throughout. Any conditions limiting or interfering with ideal function may be expected to exert some degree of inhibitory effect on the rate and degree of growth. Some of the limiting conditions are recognized as disease states; others are included under commonplace occurrences which usually are considered as innocuous. Examples of each will be offered subsequently.

In every large group of children of any given

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†From the Department of Pediatrics, State University of Iowa.



age, wide ranges of height will be observed, although there will tend to be a grouping around the average value. Are all of these children to be considered as normal, and their heights as representative of the innate pattern of each? No one can ignore obvious hereditary patterns. On the other hand, one dare not explain all deviations on genetic grounds. Good evidence has been presented that the physique of whole average populations may be shifted upward or downward, with improvement or with deterioration of conditions of living. This has been demonstrated with groups of constant ethnic, geographic or socioeconomic stock. For example, several studies indicate that the current college generation is significantly taller than its parents were as college students. In other studies, both in races which are notoriously short and in races peculiarly tall, there is a trend toward advance in height for those members who are living under the better environmental conditions. Further, children living under favorable conditions throughout this country tend to surpass the standard height-age values, which have been based largely on measurements of children living under suboptimal conditions.

When the measurements of any given child are found to fall below the average for the child population at large, what should be the interpretation? If the foregoing evidence is to be accepted, then the child's status should be considered as evidence of faults in his earlier pattern of living or of disease, until careful search has ruled out the possibility of abnormality. It is not justifiable to assume that any such deviation will correct itself spontaneously. Instead, the trend is for the child to continue to follow his earlier pattern of growth, unless outstanding changes can be made in his pattern of living or causative factors can be eliminated in some other manner.

Omitting from consideration all genetic and endocrine factors, what conditions are most likely to interfere with normal growth progress? By definition, one would include any condition which would interfere with adequate intake, digestion, or utilization of food. Long continued faulty nutrition can retard growth, although the degree or nature of malnutrition may not seem clinically significant. Chronic or recurrent vomiting or diarrhea obviously could have a similar effect. Faulty absorption, as is manifested in celiac disease, or chronic indigestion of any form, can limit growth. Inadequate utilization of food commonly lessens growth; uncontrolled diabetes mellitus is a good example of such a condition. Apart from the intake or utilization of food, chronic dysfunction of any of the vital systems can interfere with growth. Thus, in the child with chronic renal insufficiency,

or with severe pulmonary disease, or with poorly compensated congenital deformity of the heart, shortness of stature is commonplace. Whether or not any given condition will interfere with growth will be determined by the body's ability to compensate fully for the abnormal state. On some occasions, the failure of growth may be considered in itself as one of Nature's methods of compensation.

If causative conditions can be eliminated, growth may be resumed and may even terminate in normal proportions. Many infants overcome the initial smallness due to premature birth before the completion of their first year of postnatal life. Babies who have been subjects of severe marasmus respond as fully, if the cause of the difficulty is remedied and the future environment is adequate. Prolonged undernutrition, on the other hand, may lead to delayed maturation and also to shortness of stature in adulthood.

Gross retardation of growth may be evident in a child, yet it may not be discovered unless measurements have been made and appraised. Stunted children often are of normal proportions, and their shortness is not apparent unless their age is uppermost in the mind of the observer. Moreover, the child's poor growth may offer the first or even the only clinical evidence that abnormality is present. An example is offered of a boy who was referred to the Pediatric Outpatient Clinic for some irrelevant complaint, but who was found in the course of examination to be of a height corresponding to a child several years younger than his stated age. He was admitted to the hospital for study and was found to have far advanced renal insufficiency secondary to congenital deformities of his kidneys.

Every physician should have some concept of desirable standards of height for various ages and predictable rates of growth, without having to depend on the dubious value of standard height-age tables. For the use of the physician, the following summary values are offered: Under favorable conditions, the thriving youngster may be expected to have a height of 3 feet at the age of two and one-half years,  $3\frac{1}{2}$  feet at five years, 4 feet at seven and one-half years,  $4\frac{1}{2}$  feet at ten years, and 5 feet at thirteen years. The regular sequence of these values will be noted, and will help to fix them in mind. Put in a different way, the child may be expected to double his birth height of 20 inches by the age of four years; thereafter, his annual growth under proper conditions will approximate  $2\frac{1}{2}$  inches a year. If the child fails to conform to these standards, careful appraisal of his physical condition and of his manner of living is indicated. If he exceeds the stated values, it usually may be accepted as evidence of unimpeded growth.

## SUMMARY

As a means of aiding diagnosis and extending maximum service to patients, it is important that certain physical measurements be obtained and recorded as part of every general examination of a child. These values should be used not only for the purpose of immediate appraisal but also for future reference to determine growth progress. Commonly the average patient needs advice regarding the betterment of his dietary and hygienic pattern of life. Substandard measurements supply a proper motivator for the child or for the parent to make the necessary improvements in living conditions. Substandard growth also may lead to the detection of chronic disease not apparent through the usual clinical procedures. Through recognition of the preventability of substandard growth, the physician and his patients are brought to appreciate the concept of predisease states, and the importance of good living.

## Discussion

Dr. Arnold M. Smythe, Des Moines: I think Dr. Boyd has covered the problem thoroughly, although in our private practice and in our clinics we probably see a different type of individual than that seen at the hospitals. In most of our patients the stunting and abnormalities we find, which are mild, are due mainly to malnutrition and not so much to the endocrines and other conditions which may produce them.

There is a definite problem which confronts us in the treatment of these children in our clinics and in our private practice. We are able to determine the cause, but to apply the proper treatment is another problem. We find we have many children who are stunted in growth, and on analysis we find that their diet has been very, very poor. In order to accomplish any results with these children, we must go into the homes, with the aid of a social service worker, and instruct the mothers to carry on properly for the children. After this is accomplished, the child makes satisfactory growth in both height and weight.

The problem that confronts us in private practice, then, is getting it across to the parents how to carry on with the child. As I said before, the difficulty is in teaching the mother how to prepare the food for the child. In many of the homes we enter we find there is an abundance of food but it is prepared in such a way that no one could really gain or grow on it.

The simple measurements which Dr. Boyd has outlined require no detailed work, but they do give us much valuable information in regard to the status of the child itself. I think measurements have been sadly neglected in all phases of the practice of medicine. Whether a general practitioner or a pediatrician, many of us have slipped and failed to comprehend the full value which may be obtained from these simple procedures.

AGRANULOCYTOSIS FOLLOWING  
SULFADIAZINE ADMINISTRATION\*

MAJOR HARRY B. WEINBERG, M.C., A.U.S.

Four isolated cases of agranulocytosis resulting from sulfadiazine administration have appeared in the literature to date.<sup>1 to 4</sup> The present case is the fifth and presents some interesting sidelights.

## CASE REPORT

*Chief Complaint:* B. J. O., a white soldier twenty-five years of age, entered the Station Hospital, Fort Benning, Georgia, on June 11, 1942, complaining of weakness and loss of weight.

*Past History:* The patient had always enjoyed good health. He had had measles and mumps in childhood, but no other diseases. There was no history of the rheumatic state in any of its manifestations. When he was examined for induction into the army sixteen months previously, there apparently was some question regarding his heart because he was given a special cardiac examination. He was accepted, however, and performed full duty with no discomfort whatsoever. Two months prior to hospitalization he underwent a complete physical examination as a candidate for officer training and was accepted without reservation.

*Present Illness:* The patient had felt well until about four weeks prior to admission, at which time he noticed that he was waking each day about 6:00 a. m. drenched in perspiration. Two weeks prior to admission he began to feel feverish in the evenings, and about the same time he began to develop generalized weakness in his muscles and lost thirty-three pounds in weight.

*Physical Examination:* On admission to the hospital the patient's oral temperature was 101 degrees, the pulse rate 96, and respiratory rate 22. He was 70 inches tall and weighed 150 pounds. The blood pressure was 104 systolic and 70 diastolic. His skin was diffusely tanned from exposure to the sun, but was otherwise clear. The nail beds had a cyanotic hue; no clubbing was present. The heart was enlarged to the left. The pulmonic second sound was accentuated and bifid. A loud, long, blowing systolic murmur was heard over the entire precordium, maximal at the apex, and well transmitted to the axilla and back. No diastolic murmurs were heard. The liver edge was palpated 2 centimeters below the costal margin on deep inspiration; it was smooth and tender. The spleen could not be felt. There was a slight general diminution in muscle power and evidence of weight loss. Other findings were noncontributory.

\*From the Cardiovascular Section, Station Hospital, Fort Benning, Georgia.



*Laboratory Findings:* The blood count showed 3,200,000 red cells with 9.7 grams of hemoglobin, and 8,900 white cells of which 75 per cent were polymorphonuclear leukocytes, 22 per cent lymphocytes, 2 per cent monocytes, and 1 per cent basophils. The urine had a specific gravity of 1.019 and was negative for albumin, sugar, or formed elements in the centrifuged sediment. The stools were negative for parasites or ova. Blood smears failed to reveal malarial parasites. Blood agglutination tests for typhoid, paratyphoid A and B, Brucella, Pasteurella tularensis, and Proteus X19 were all negative. The erythrocyte sedimentation rate by the Cutler method was 28 millimeters in one hour. Kahn examination of the blood was negative. The icterus index was 6. The initial blood culture showed no growth after ten days. The electrocardiogram was within normal limits. The teleroentgenogram showed slight cardiac enlargement involving the left ventricular salient with straightening of the left border at its waist.

*Course:* A diagnosis of subacute bacterial endocarditis was made. The patient received sulfadiazine from June 18 to July 7, sulfathiazole from July 27 to August 19, aminopyrine from August 22 to October 13, and other supportive medication as indicated. His temperature remained consistently high, tending to be about 100 in the morning and 103 in the evening, until aminopyrine was started; this brought the temperature level down, easing the patient's discomfort. The spleen became palpable one week after admission and increased in size until it reached 5 centimeters below the costal margin; the liver enlarged to 8 centimeters below the costal margin. During the early weeks of the illness, a single petechia appeared on three different occasions; toward the end, multiple petechiae were seen in the skin. Eleven blood samples were drawn for culture, eight of which were taken at periods when sulfonamides were not being administered; no growth appeared in any culture. Moderate anemia persisted throughout the course, except for a short period when both the red cell count and the hemoglobin were temporarily elevated in the course of intensive blood transfusion. Frequent urinalysis revealed no red blood cells or albumin; late in the course, white blood cells were occasionally found. One splenic infarction was clinically recognized. The patient began to fail about the middle of September and died October 13, 1942, in congestive heart failure.

The white blood cell response to sulfadiazine administration is illustrated in Fig. 1. After twelve days of therapy, a leukopenia of 3,000 to 3,800 developed, but the percentage of granulocytes remained normal. On the nineteenth day of the drug administration the granulocytes in the

peripheral blood began to decrease precipitously, numbering 36, 12, and 3 per cent respectively on three consecutive days. For six days they numbered not over 3 per cent of the total white cells; on two of the days no granulocytes were seen. The total white cell count roughly paralleled the granulocyte response, reaching a minimum of 900 cells per cubic millimeter. The red cell count was not affected. The patient received a total of 102 grams of sulfadiazine in 20 days. When the agranulocytosis appeared, the drug was discontinued and liver extract, pentnucleotide, and multiple blood transfusions were administered. After six days with practically no granulocytes in the peripheral blood, they reappeared rapidly and remained in normal proportions thereafter.

Sternal puncture was performed on the day the percentage of granulocytes fell to zero. The report of the microscopic examination of the marrow follows:\* "There is a remarkable decrease in the number of nucleated cells present in the bone marrow. This appears to be due to practically an absence of myeloid cell forms, although an occasional premyelocyte is seen; as is true of the peripheral blood, no polymorphonuclear leukocytes are present. A discouraging omen is the rarity of stem forms whose presence might otherwise pre-  
sage a future granulocytic response. Erythrogenesis is proceeding normally. Increased numbers of lymphocytes and numbers of marrow irritation forms (Turck and Rieder cells) indicate the reactive response of the marrow. Platelets are not disturbed. Diagnosis: Agranulocytosis, toxic."

Sternal puncture was repeated six days later. The report on this specimen was: "There is a marked myeloid hyperplasia. Numerous myeloid forms appear to be in the same phase of maturation (premyelocyte and early myelocyte); but the presence of numbers of more mature leukocytic forms indicates that the process is one of 'explosive' growth rather than maturation arrest. Contrasted with the previous marrow specimen, there is an evident release of the marrow from its suppression. The character of the granulation (toxic) shows persistent action of the toxic factor."

*Autopsy:* Culture of the heart's blood drawn at the time of autopsy revealed Streptococcus viridans. Anatomic findings included: Subacute bacterial endocarditis involving the mitral valve; healed minimal rheumatic mitral valvulitis; cardiac hypertrophy and dilatation; multiple infarcts of spleen and kidney; and generalized anasarca.

#### DISCUSSION

The blood sulfadiazine level is of interest in this case in that it dropped from 11.4 milligrams per

\*The sternal punctures and the autopsy were performed by Captain Ira Gore, M.C., A.U.S., Pathologist, Station Hospital, Fort Benning, Georgia.

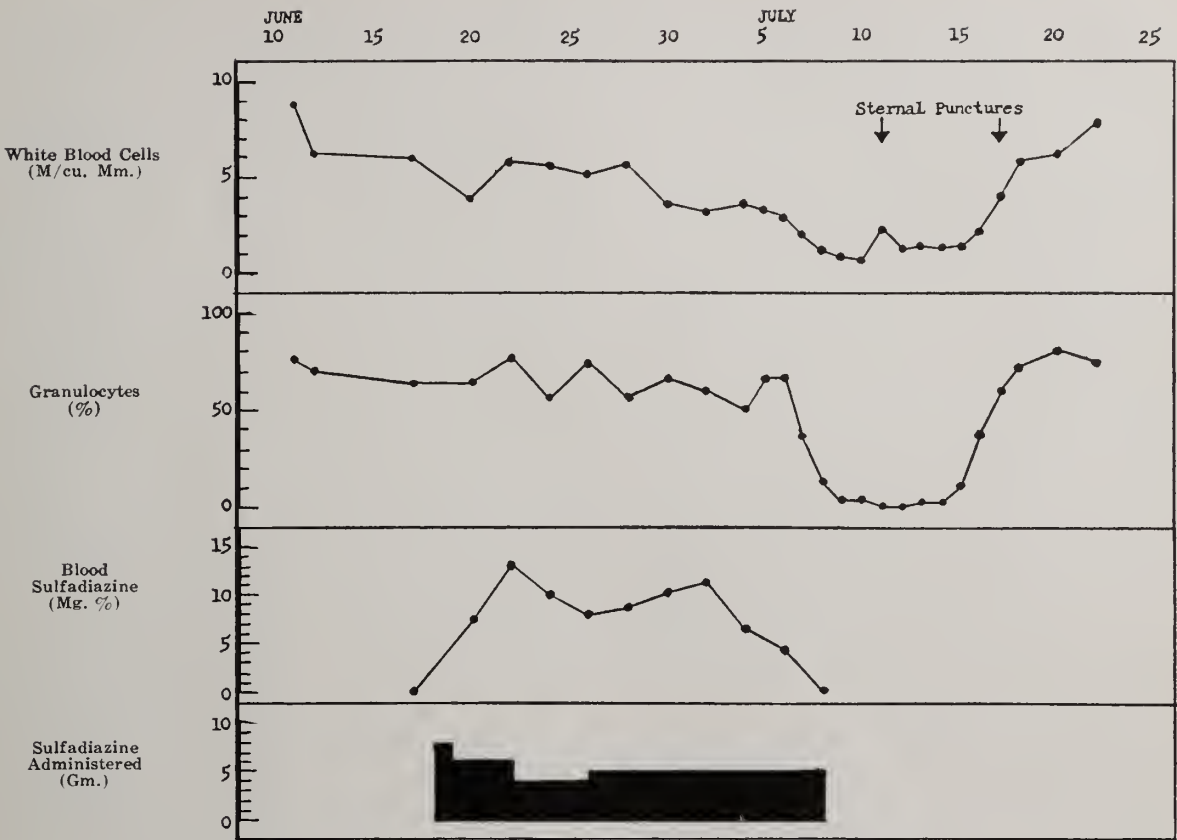


Fig. 1. Reaction of White Blood Cells Under Sulfadiazine Administration.

cent to a trace over a period of six days during which the patient was receiving 5 grams of the drug daily (Fig. 1). This phenomenon is unexplained; the ward nurses stated that the patient actually swallowed the medication in their presence, and he did not vomit, so that failure of administration is not thought to be the cause. The fact that the acute agranulocytosis developed while the blood level of the sulfadiazine was dropping cannot be used as evidence that the drug was actually being administered because in one of the previously reported cases<sup>3</sup> the agranulocytosis appeared six days after the medication was discontinued. Although a high concentration of sulfadiazine was present in the blood in one of the cases,<sup>2</sup> this is apparently not necessary for the production of this complication, since the level was low in two others,<sup>3 and 4</sup> and in this one; in the fifth<sup>1</sup> the level is not reported. Prolonged administration of sulfadiazine is common to all five cases; agranulocytosis was first recognized on the nineteenth, twenty-fifth, twenty-seventh, twenty-fourth and nineteenth day, respectively.

It is also of interest that following recovery from the granulocytosis, this patient received two drugs

which are known to be potential depressants of white blood cell formation; namely, sulfathiazole and aminopyrine. The blood count was closely followed during the administration of these two drugs, and in neither instance did a neutropenia occur.

SUMMARY

A case is presented of acute agranulocytosis occurring in the course of sulfadiazine administration, with recovery from the complication. It is the fifth case of this complication reported to date. The agranulocytosis occurred when the blood level of the drug was low; however, as in all of the other cases, it appeared after prolonged administration. Subsequent administration of sulfathiazole and of aminopyrine did not depress the leukocyte count.

REFERENCES

1. Levin, M., and Bethell, F. H.: Fatal granulocytopenia developing during the administration of sulfadiazine. *Univ. Hosp. Bull., Ann Arbor*, viii:30 (April) 1942.
2. Curry, J. J.: Acute agranulocytosis following sulfadiazine. *Jour. Am. Med. Assn.*, cxix:1502-1503 (August 29) 1942.
3. Janeway, C. A.: Medical progress; sulfonamides; their clinical use. *New England Jour. Med.* ccxxvii:1029-1044 (December 31) 1942.
4. Rothstein, S. N.: Acute Agranulocytosis Due to Sulfadiazine. *Delaware State Med. Jour.*, xv:42-45 (March) 1943.



## THE FINLEY HOSPITAL CLINICOPATHOLOGIC CONFERENCES

### HOW THE RECORD LIBRARIAN IMPROVES THE PROFESSIONAL SERVICES RENDERED BY DOCTORS AND HOSPITALS

JEANNE F. ZIGAN, B.S., R.R.L., Dubuque

*"That accurate and complete medical case records be written for all patients and filed in an accessible manner in the hospital, a complete record being one which includes identification data; complaint; personal and family history; history of present illness; physical examination; special examinations, such as consultations, clinical laboratory, x-ray and other examinations; provisional or working diagnosis; medical or surgical treatment; gross and microscopical pathological findings; progress notes; final diagnosis; condition on discharge; follow-up and, in case of death, autopsy findings."*<sup>1</sup>

This quotation contains the essence of what constitutes a good clinical record. It was one of the five minimal requirements of Hospital Standardization by the American College of Surgeons in 1918 for approved hospitals and was the instigation of the medical record department. This movement by the College aimed to encourage all hospitals to apply certain fundamental principles for the efficient care of the patient. Thus, the foremost product of hospitals is medical service. It is of prime importance to the patient, to the doctor, and to the community that this service be good and yet few, if any, hospitals have this service audited in a manner comparable with that of finances or inventory. The medical records of the hospital are the source of evidence of medical service given to the patient, and it is with this purpose in mind that a trained record librarian, through her assistance to the doctors in compiling patients' records, endeavors to instill a spirit of "record consciousness" in her hospital, always with the aim of improving the service.

The adequacy of medical service is based upon competent diagnosis, reliable therapy, and care of the patient as a whole, not just his acute condition. Since the medical record holds this evidence, or does not hold it, according to the interest and conscientiousness of the attending physician, it is of utmost importance that every method be utilized to make the record accurate and complete. The individual or group which is not vitally interested in the results of its work with a view to continual improvement is static if not decadent. Therefore,

to justify the conclusions attained through the efficiency and character of his services, a physician should diligently write a scientific document of the treatment administered his patient, since the scientific value of a record is in direct proportion to the care with which it is compiled. When a record is written for its scientific value, a patient receives better care, the physician augments his clinical knowledge and the cause of medical science is benefited.

Hippocrates was the first to systematically record the symptoms of disease; he considered prognosis important; his notes were written in a full as well as precise manner; he did not bother with nonessentials nor use meaningless words; his style was simple and dignified, revealing always scientific honesty; his descriptions of the clinical manifestations of many diseases are as good as we have today. If Hippocrates did it over 2,500 years ago, surely the modern doctor can do so today.

With the progress of medical science has come the development of numerous and extensive procedures and diagnoses. An individual's memory is no longer sufficient to retain the mass of information pertaining to each patient, as was possible for the doctors of former years. To alleviate the physician's burden of what to him seems tedious clerical duties comes the trained record librarian. She has earned a place of responsibility as head of an increasingly important department through her assistance to the individual physician in preparing the records of his patients and to the staff as a group in the utilization of the records as a means of improving the professional services of the hospital.

The qualifications of an ideal record librarian are many and it is probably humanly impossible to possess all of them, but the effort to approach the ideal should be ever present in the mind of the record librarian. A specialized education is of first importance. This includes a broad background of general culture, a thorough knowledge of anatomy, an understanding of sociology, pathology, operative and therapeutic procedures, a proficiency in English, shorthand, typewriting, and secretarial duties, and, by all means, a knowledge of medical terminology for every moment of the day. These are to be expected in the trained record librarian. Appearance and personality rank second. Those of us who are not glamorous beauties are comforted by the knowledge that cleanliness and neatness are excellent and accepted substitutes. Courtesy, pleasantness, and a sense of humor portray an attractive personality. A generosity of time and effort regarding the work and the interests or hobbies of the physicians and the hospital personnel, with a keen intuition for their

desires when they visit the record room, enable the librarian to enter into their moods and to react accordingly. These are all attributes which definitely lend toward her being a gracious hostess in the friendly atmosphere of her department.

Tact and diplomacy are probably the most important requisites in practical application in the matter of releasing or withholding confidential information and in the departmental contacts within the institution. A progressive and industrious attitude with accuracy, honesty, initiative, originality, tactful tenacity, and cooperation follow closely in line as vital characteristics in one who is to maintain an efficient department. Someone has given as a most desirable definition of a medical record librarian: "A combination secretary, clerk, medical dictionary, encyclopedia, general information bureau, memory wizard, mind reader, slave driver and diplomat"—a veritable paragon of efficiency and knowledge, no less!

In assisting a physician with the compilation of the record, the record librarian has nine major responsibilities:

1. To plan, set up, organize, and manage an efficient department. This embraces a desirable location and adequate equipment to assure efficient, economical, and prompt service. The ability to advantageously reorganize and improve the department, making it second to none, marks her as an essential worker in her institution.

2. To promote in every possible manner the obtaining of good medical records. Histories and records of physical examinations should be obtained through dictation in the record room or from the attending physician's office, if such is the custom. In smaller hospitals, time may allow the record librarian to make rounds with the doctors to facilitate the recording of progress notes. In my opinion, just as records should be filed in an accessible manner for immediate use, so should the record librarian be accessible for assistance with work on the charts while the patients are in the hospital. This will reduce the number of incomplete records—"cold charts"—when patients are discharged. Presentation of herself as a "P.R.N." worker to promptly record data on the charts expresses a desire by the record librarian to share in the organized, well-directed, and persistent effort of the entire hospital personnel to reach the desired goal—the better care of the sick.

3. To cooperate with all other departments of the hospital in the matter of records. This often includes dictation of reports for the records from such adjunct departments as surgery, x-ray, laboratory, and out-patient clinic. Inasmuch as the record is a composite of data from these departments and the admitting office, business office,

nursing, dietary, and social service departments, the record librarian should be ever ready and willing to forward the requested additional sociologic or medical data to them for their files.

4. To assemble, cross-index, and file medical records. The record librarian must know the component parts of a record and be able to judge the scientific value of the statements of the attending physicians in order to recognize and correct deficiencies and discrepancies. She must systematically arrange the integral parts of the record for ease in reference. The librarian must be familiar with various types of cross-indexing of diseases and operations. If the Standard Nomenclature of Disease and Operations has been accepted for usage by the staff, she must familiarize the doctors with its system of diagnosing by site and cause; this will eliminate the confusion between symptoms and diagnoses. A knowledge of the numbering and filing of records will enable her to make recommendations suitable for her hospital, either in her own or adjunct departments.

5. To assist the medical record committee in its qualitative review and appraisal of medical records. This procedure is not a personal matter nor an unjust criticism of the work of colleagues; it is an auditing by staff doctors, with sound judgment and sufficient experience, of the quality of the records in order to maintain a high standard of service in the hospital. The record committee makes certain that the record contains the necessary data to justify the diagnosis made and to warrant the treatment and the results. That this auditing committee should include a pathologist is most desirable, especially in the event of necropsy. The approving of the records is a movement by the individual hospital toward the advancement of medicine with practical experience as the teacher. It is to be encouraged as such rather than shunned in view of the unfriendliness which might arise among the staff doctors when their records stand correction.

6. To assist the program committee of the medical staff in preparing the program for the monthly meetings. Because of the intimate contact which the record librarian has with each record in her quantitative analysis of it, her duty is to call attention to scientifically interesting and worthwhile cases for presentation by the program committee. Especially is this true in small hospitals which usually admit only private patients. A good program is of vast importance in stimulating active interest and good attendance at the meetings as well as maintaining the high standard of scientific excellence in the institution. The record librarian should also be available to prepare and mail notices for staff meetings, to make transcripts of cases



reviewed at these conferences for the permanent record minutes book, to write letters, and to make abstracts of records for the staff members.

7. To prepare monthly and annual medical statistical reports. These present the progress of the medical service of the hospital for comparative study. Since the efficiency of a hospital is gauged by the end results of the staff, the accuracy and completeness of these statistics are of utmost importance.

8. To make group studies of disease and collect scientific data from the literature for the medical staff. Through the use of the disease and operative indices, the record librarian is able to supply quickly and completely all the cases of the disease specified for study which have been treated since the beginning of indexing in the hospital. She can further assist the doctor by extracting the desired details from these records and preparing the summary for him. In assisting the staff members with the preparation of manuscripts for publication, she can help greatly by editing them and by preparing the bibliographies, thereby setting forth the news of medical interest found within her institution. That this can be done is evidenced by the fact that in our hospital, 160 papers have been published, mostly within the last decade, and are now being mailed monthly to many states within this country and, upon request, are reaching foreign soil.

9. To correlate the medical record department and the medical library. If this correlation is possible, the record librarian by a perusal of current medical literature can be familiar with advances in medicine and be able to add to the cases selected for discussion or publication. The current literature is thereby used to best advantage by members of the medical staff in review and analysis in conjunction with their clinical work.

In summarizing the duties and responsibilities of a medical record librarian, this definition is quoted: "A person trained to coordinate and organize all information submitted to the various departments of the hospital so that a complete file of the patients' medical records is readily available at all times."<sup>2</sup>

The most common deficiencies in records are the delay in the writing of histories and records of physical examinations in a complete manner, the brevity of essential data through the use of such expressions of opinion as "normal" or "negative" rather than stating the specific facts, and the lack of prompt recording of consultation and progress notes. The responsibility of the compilation of the record is divided. The superintendent enforces the rules adopted by the hospital regarding the records. The admitting office, in a well managed

and disciplined hospital, routinely records the accurate first entries of the sociologic data. The attending physician records in medical language clear, concise descriptions of an adequate and thorough objective study through which a provisional diagnosis may be correctly concluded and the indicated therapy begun. The nursing department furnishes routine, complete, and accurate objective notes regarding the patient's condition. Only the notes of this type aid the physician in recognizing possible complications and result in the much desired correlation between the nurses' notes and the physicians' progress notes. The adjunct departments of the hospital submit prompt reports which aid very often in the accurate diagnosing and immediate proper treatment which may affect the prognosis of the case. The record librarian checks the records and prepares them for the files.

Accurate records are the basis of medical progress. The future use of the record in a personal or impersonal manner in the event of future illness of the patient, collection of insurance or heritage, legal problems, statistics, or research should be borne in mind at the time the evidence in the case is obtained and recorded. Better records will continue to share in and affect the progress of medicine. Only through the recognition of errors and the acceptance of them as constructive experience—always to be heeded—will this progress be stimulated to a more effective end. Good records beget better and better records. Why not write the best records today?

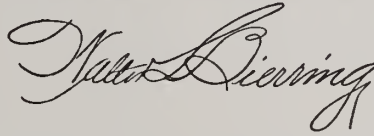
#### REFERENCES

1. MacEachern, Malcolm T.: *Manual of Hospital Standardization by the American College of Surgeons. Physicians' Record Company, Chicago, 1918.*
2. Huffman, Edna K.: *Manual for Medical Records Librarians. Physicians' Record Company, Chicago, 1941.*
3. Allen, Wilmar M.: *Medical service audit. Hospitals, xvii: 56-57 (May) 1943.*
4. MacEachern, Malcolm T.: *Medical Records in the Hospital. Physicians' Record Company, Chicago, 1937.*

#### MATERIAL AVAILABLE ON WAGNER-MURRAY BILL

The Steering Committee of the Iowa Interprofessional Association has prepared a talk on the Wagner-Murray Bill which is suitable for doctors to give before lay audiences. It has also prepared an outline of a suggested talk, and suggestions for conducting a meeting. This material is available to any physician or member of the Iowa Interprofessional Association who wishes to discuss the bill. Write the Iowa State Medical Society, 505 Bankers Trust Building, Des Moines 9, Iowa, for a speaker's kit.

# STATE DEPARTMENT OF HEALTH



## Milk-Borne, Food, and Water-Borne Outbreaks in Iowa and in the United States, 1942

The Sanitation Section of the United States Public Health Service recently issued a report of milk-borne, food, and water-borne outbreaks as notified from state and territorial departments of health in the United States for the year 1942.

### OUTBREAKS CONVEYED THROUGH MILK PRODUCTS

The Public Health Service report lists 34 outbreaks known to have resulted from contamination of milk and milk products and nine additional outbreaks which were possibly conveyed through milk.

The known outbreaks comprised the following: one of bacillary dysentery (40 cases), caused by the Sonne dysentery bacillus (*Shigella paradysenteriae* var *Sonnei*); one of chemical food poisoning (36 cases), presumably due to alkali used as a detergent and not thoroughly rinsed from utensils; seven of gastro-enteritis (512 cases), caused in four instances by *Staphylococcus*, in two instances by strains of *Salmonella* (*S. enteritidis* and *S. schottmülleri*); one of paratyphoid fever (4 cases); two of scarlet fever (103 cases), and four of septic sore throat (517 cases); five of typhoid fever (42 cases); five of brucellosis or undulant fever, including seven cases at Bennett (Cedar county), Iowa, and two cases at Madrid (Boone county), Iowa.

In 30, or 88 per cent of the 34 outbreaks, contamination involved raw dairy products (sweet milk or ice cream). Pasteurized milk was incriminated in four outbreaks, illness being attributed to toxin in one instance and on two occasions to incomplete pasteurization.

#### Brucellosis or Undulant Fever at Bennett, Iowa

Seven persons developed clinical manifestations of undulant fever, confirmed by positive agglutination findings. All patients used raw milk from the M. dairy. During weeks preceding illness, patients had little or no occasion for contact with

farm animals. Two cows at the M. dairy proved reactors to the agglutination test for Bang's disease. *Brucella suis* was isolated from milk of one of these animals. Cows and hogs had been allowed to mingle in the same lot. Infected cows were removed from the herd.

#### Brucellosis or Undulant Fever at Madrid, Iowa

Two adults developed illness, one with onset in July, the other in September, 1942. Both patients showed positive agglutination reactions; both had used raw milk from a local dairy. Of thirteen cows in the dairy concerned, nine reacted to the agglutination test. Infection was attributed to the bovine type of *Brucella*, *Brucella abortus*.

#### Diphtheria in Muscatine County, Iowa (Orphans and Old Peoples Home)

Among the nine additional outbreaks in the United States possibly conveyed through milk and milk products was one caused by diphtheria in an Orphans and Old Peoples Home at Muscatine. The first of 36 cases occurred in a girl fourteen years of age, who had a mild, undiagnosed case. She later helped in the kitchen and dining room, and remained a carrier until the end of the epidemic. Several factors which indicate that milk probably served as a vehicle of transmission were: (1) the explosive nature of the epidemic with occurrence of fifteen cases within 48 hours; (2) almost equal distribution among the sexes; (3) a known carrier with history of helping in kitchen and dining rooms; and (4) a raw milk supply susceptible to contamination in the kitchen or elsewhere.

### OUTBREAKS FROM FOODS OTHER THAN MILK

Among 227 outbreaks due to contamination of foods other than milk, as notified to the Public Health Service for the year 1942, no outbreaks of this nature were officially reported from any of the county seat cities or other communities in Iowa.



### Botulism

Seven outbreaks were reported and investigated, five in California, and one each in Michigan and North Dakota. The cases totaled 20, including seven deaths. Contaminated vehicles were chiefly home canned foods (salmon, asparagus, dill pickles, beans).

### Bacillary Dysentery

One outbreak was reported from Michigan, with 86 cases and six deaths. Causative organisms, as revealed by laboratory study, proved to be strains of dysentery bacilli (*Shigella paradysenteriae*, Flexner and Hiss Y). Two carriers were identified among food handlers.

### Chemical Food

Seven outbreaks were investigated in six states. The cases numbered 42, and there were two recorded deaths resulting from arsenic poisoning. Other chemicals found to have contaminated food or beverages were cadmium, copper, roach powder, and sodium fluoride (added by error to dried fish and meat pie).

### Food Poisoning

Outbreaks in this category totaled 157, notified from 23 states. Most of the investigations were made in the following states: New York (61), Michigan (25), California (18), Kentucky (10), and Pennsylvania (8).

The total of the cases was 7,672 with eleven deaths. Organisms and toxins found by laboratory work to be the etiologic agents in some of these food-borne epidemics were: *Staphylococcus aureus* (49 outbreaks), *B. coli* (4), *B. proteus* (1), *Salmonella typhi* murium (1), *Salmonella* (two strains isolated from tenderized ham), *S. berta*, *S. enteritidis*, *Salmonella E*, *S. give*, *S. monteideo*, honey (bees' honey from poisonous plants containing andromedo toxin), muscarine (mushrooms—3 cases, 1 death), shellfish (sea mussels and butter clams containing gonyaulax toxin).

### Gastro-enteritis

Thirteen states reported 41 outbreaks with a total of 2,345 cases. Causative organisms were found to be toxin producing *Staphylococci* (17 instances); various species of *Salmonella* were also identified in six outbreaks.

### Paratyphoid A

Minnesota reported one outbreak (2 cases); the causative organism was found in smoked codfish or kidney.

### Trichiniasis (trichinosis)

Nine outbreaks were reported and investigated in three states, totaling 43 cases (2 deaths). Pork was incriminated in all cases, the kinds of food being home prepared smoked sausage, raw sausage, Italian sausage, pork chops, and sausage meat.

### Typhoid Fever

Four epidemics were notified from three states and Honolulu. The cases numbered 158 with 12 deaths. The sources of infection were carrier (3 instances) and case (1 instance).

### Possible Outbreaks Due to Food

Eleven other outbreaks of food poisoning and gastro-enteritis and three of typhoid fever (20 cases, 5 deaths) were regarded as possibly resulting from contamination of food.

### Outbreaks Transmitted by Water

Water-borne outbreaks as reported and investigated in the United States numbered 52. Clinical conditions concerned were dysentery (6 epidemics), gastro-enteritis (37) and typhoid fever (9). No outbreaks possibly conveyed by water were reported in Iowa during 1942.

### Reporting of Cases

It is evident from this report of the United States Public Health Service that outbreaks resulting from contaminated milk, food, and water supplies occur more frequently than is realized. Dependence must be placed on the laboratory to reveal the cause of a condition like septic sore throat or of an acute intestinal disorder. Attending physicians and local health officers who may observe cases or suspected cases are requested to report them to the office of the District Health Service or to the State Department of Health.

### PREVALENCE OF DISEASE

Disease	Dec. '43	Nov. '43	Dec. '42	Most Cases Reported From
Diphtheria .....	7	14	12	For the State
Scarlet Fever ....	352	252	251	Allamakee, Buena Vista, Des Moines
Typhoid Fever ....	2	8	4	Cerro Gordo
Smallpox .....	4	1	3	Cerro Gordo, Jackson, Mitchell, Pottawattamie
Measles .....	140	140	192	Allamakee, Dallas, Marshall
Whooping Cough..	97	148	144	Cedar, Marion, Warren
Brucellosis .....	35	21	33	For the State
Chickenpox .....	520	347	497	For the State
German Measles ..	71	36	22	Dallas
Influenza .....	22,659	5	0	For the State
Malaria .....	0	1	0	None
Meningitis .....	12	0	0	For the State
Mumps .....	65	48	162	For the State
Pneumonia .....	129	16	86	Black Hawk, Carroll, Clinton, Polk
Poliomyelitis ....	2	8	5	Dallas, Hancock
Tuberculosis .....	54	33	55	For the State

# The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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## FAVORABLE RESULTS REPORTED IN SUB- ACUTE BACTERIAL ENDOCARDITIS FROM COMBINED PENICILLIN AND HEPARIN THERAPY

Up to the present time, in spite of numerous trials, therapy in any form in subacute bacterial endocarditis has generally been considered to be without effect. Hopes were raised when the sulfonamides made their appearance, but even massive doses of these drugs have failed repeatedly. Penicillin has been equally disappointing. The reason for the failure of drug therapy to be effective in subacute bacterial endocarditis has been held<sup>1</sup> to be due to the relative avascularity of the valve leaflets, the presence of a fibrin-platelet barrier which interferes with the entrance of white blood cells and hinders the diffusion into the lesion of bacteriostatic and bactericidal agents present in the blood stream, and the fibrin constantly being added which offers an excellent medium for the growth of these bacteria.

For these reasons it was conceived that the administration of heparin in combination with chemotherapy might prevent further fibrin formation and so lead to healing of the valve lesion. Katz and Elek<sup>1</sup> after a study of four patients treated with combined sulfonamide and heparin therapy have come to the conclusion that the further use of heparin in subacute bacterial endocarditis should be abandoned. However, Loewe, Rosenblatt, Greene, and Russell<sup>2</sup> report on the apparently successful treatment of seven consecutive examples of subacute bacterial endocarditis. Peni-

cillin and heparin were the combination used in treatment. The authors state that prolonged heparinization was accomplished by a special method devised for the subcutaneous disposition of the drug. *Streptococcus viridans* was the cause of the endocarditis in five of the seven patients while in one patient the cause was a hemolytic streptococcus and in the other the cause was a pneumococcus type 27. Six of the seven patients suffered a preceding chronic rheumatic valvulitis and the seventh, a girl seven and one-half years of age, had a congenital cardiac defect. The authors state that the daily dosage of penicillin varied from 40,000 to 200,000 Florey units given for the most part intravenously by venoclysis. The total dosage ranged from 867,920 in the case of the girl to 7,890,340 in one of the adult patients. Heparin was administered in a dosage of 300 milligrams every second day when given subcutaneously and 200 milligrams daily when incorporated in the venoclysis. No untoward toxic effects were noted as a result of either the penicillin or heparin therapy. All seven of the patients have had successful sterilization of the blood and relief of clinical manifestations for varying periods of time. However, the authors are frank to state that further observations will be required to determine the permanency of the results.

This is the most optimistic report of a therapeutic attack upon subacute bacterial endocarditis which we have yet run across. If this method of treatment should prove to be efficacious, one of the baffling and discouraging diseases of mankind will have succumbed to scientific medicine.

## INTESTINAL FEEDING IN PENETRATING WOUNDS OF THE ABDOMEN AS REPORTED FROM RUSSIA

Many reports concerning the good quality of medicine practiced by the physicians of Russia have filtered back to this country from one source or another. One such authentic source is the new *American Review of Soviet Medicine*, published bi-monthly by the American-Soviet Medical Society, 130 West 46th Street, New York 19, New York. In its first number (October, 1943) appears an article by P. A. Panikov describing his experiences in the management of penetrating abdominal wounds on the Russian battlefields.

In his experience, says Panikov, penetrating abdominal wounds have been encountered less frequently (40.9 per cent) than non-penetrating (59.1 per cent) in contrast to reports gathered from other sources of medical literature which give respective figures closer to 70 and 30 per cent. The explanation for this discrepancy may lie in the

1. Katz, L. N., and Elek, S. R.: Combined heparin and chemotherapy in subacute bacterial endocarditis. *Jour. Am. Med. Assn.*, exxiv:149-152 (January 15) 1944.

2. Loewe, L.; Rosenblatt, P.; Greene, H. J., and Russell, M.: Combined penicillin and heparin therapy of subacute bacterial endocarditis. *Jour. Am. Med. Assn.*, exxiv:144-149 (January 15) 1944.



fact that mines are more widely used than rifle fire in this war. Wounds of the stomach, intestines, and intra-abdominal portion of the gallbladder account for 84.5 per cent of those penetrating the abdomen, while the parenchyma and mesentery are involved in 13.2 per cent and the large vessels in 2.3 per cent.

Diagnosis may at times be difficult, especially when symptoms of collapse or shock confuse the picture. Delay in performing laparotomy almost always leads to the death of the patient. Statistics show that the mortality rate from wounds of this type under conservative treatment averages 90 per cent, but with prompt operative interference about 30 per cent of those seriously injured can be saved. Among Panikov's patients 50 per cent died who were operated upon within twelve hours, 59.1 per cent when surgical intervention was delayed twelve to twenty-four hours, and 80 per cent when delayed longer than twenty-four hours.

Naturally this high mortality rate has led to constant striving to devise means which would better the situation. Various methods were instituted, such as reducing the time-lag in operation (not later than one hour), minimum surgical interference, local infiltration anesthesia, use of sulfa drugs in the peritoneum, introduction of anti-gangrene sera, blood transfusions, etc. In spite of all these, however, Panikov's mortality rate did not fall below 50 per cent.

Clinical observation showed that the majority of the wounded men died on the second or third day after operation and that neither shock nor peritonitis was a factor. It was concluded that death was due to the general debility of the patient brought about by the hardships suffered in battle. "In order to raise the resistance of the organism," says Panikov, "which in its postoperative state is forced to remain for some time on a starvation and then on a very sparing diet, we decided to adopt Spasokukotski's method of feeding the patient on the operating table. This method had fully justified itself in peacetime abdominal surgery and had won many adherents among the surgical world of the Soviet Union."

A food mixture is prepared consisting of 400 cc. natural milk, 50 cc. sweet butter, 2 eggs, 50 grams of sugar, 3-5 grams of salt, and 50-70 cc. distilled alcohol. A trocar is sutured into a suitable portion of the emptied intestine and the warm food mixture is introduced through a rubber tube. The trocar is removed and the wound closed. Results attributed to Spasokukotski's method of intestinal feeding frequently observed on the operating table include improved color; firmer pulse; deep, regular breathing; and the intestine itself,

instead of being flaccid and pale, generally became dilated, plethoric, and obviously peristaltic. Patients went through the postoperative period with much less pain, and the general appearance was satisfactory from the first day. Peristalsis was normal at the end of the second or beginning of the third day, and from the third to the fifth day appetites became evident.

The author cites several case histories illustrating this method of treatment and states that the mortality rate among these patients does not now exceed 40 per cent. He is convinced that the method should be used more widely in the battle areas.

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### RELOCATION OF PHYSICIANS

There are some communities in Iowa which need additional medical service. The recent publicity given to Glenwood shows what can happen when emergencies arise. It is probably safe to say that that situation is now under control, but there are other communities which need one doctor or an additional doctor.

It would seem only equitable that the physicians who have been classified as available by the county Procurement and Assignment Committee, but are physically disqualified for army service, should, when requested, give serious thought to relieving these situations. The only compulsion is, of course, a moral one. Such physicians can be of a great deal of service to their country by filling a necessary civilian location where medical care is needed. True, it will not have the glamour of a uniform, but the physician who answers such a call will have the satisfaction of knowing he is filling a gap which, if unfilled, might be detrimental to public health and the war effort.

Dr. Thomas F. Suchomel, chairman of Procurement and Assignment for Iowa, will be glad to furnish information concerning locations to any physician who is interested. His address is 415 Paramount Building, Cedar Rapids.

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### INCOME TAX RETURNS

In past years the JOURNAL has tried to prepare an article on income tax which would be helpful to physicians in making out and filing returns. This year, however, we shall limit our article to a brief statement of information about the tax and an itemized list of allowable deductions. We shall not attempt to explain the computation of the tax; four pages of instructions accompany the blank, and to add more words would only increase confusion.

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### FEDERAL INCOME TAX

**Liability for filing returns.**

All single persons with gross income of \$500.00 or more for calendar year 1943; all married persons with individual gross income of \$624.00 or more, or combined income of \$1,200.00 for the same period.

**Income.**

A physician's gross income is the total amount of money received by him during the year for professional services, regardless of when the services were rendered, plus money he has received as profits from investments and speculation, or as compensation and profits from other sources. Wages paid to doctors who are members of the armed forces are taxable.

**Joint returns are allowable.****Credit for dependents.**

\$350.00 for each dependent.

**Personal exemption.**

Civilian—\$500.00 for single person; \$1,200.00 for head of family.

Physician in service—as above, and in addition \$1,500.00 of service pay.

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### Allowable Deductions

**Alimony and Separate Maintenance Payments.**

A ruling now makes alimony and separate maintenance payments deductible from the income of the one paying them, and considers them as income for the recipient.

**Automobile.**

When one automobile is used both professionally and socially, the doctor should estimate what percentage of the use is for professional service, and then charge that percentage of his automobile expenses as an allowable deduction.

**Car for professional use only.**

Gasoline (minus tax).

Oil, grease and repairs.

Tires.

Anti-freeze mix.

Garage or parking lot rental.

License fee—State.

Chauffeur's wages.

Miscellaneous.

State gas tax, 3c per gallon.

Federal auto tax—\$5.00

**Automobile for family use.**

License fee—State.

State gas tax, 3c per gallon.

Federal auto tax—\$5.00

**Business expenses.**

Attorney's fees (in defense of malpractice suit).

Auditing.

Bonuses.

Collection of accounts.

Fuel.

Light.

Moving to new business location.

Rent.

Repair and maintenance of professional premises and equipment.

Social Security tax on employees.

Telephone and telegraph.

Unemployment tax (if over eight employees).

Utilities repairs.

Wages.

Water.

Miscellaneous.

When a doctor has an office in his residence, he must estimate what percentage of his rent and maintenance expense is chargeable to it and how much to residence.

Office supplies. (Amounts currently spent for books, furniture, professional instruments and equipment, the "useful life of which is less than one year" may be deducted.)

Bank and check charges.

Dressings.

Drugs and chemicals.

Instruments (not having lasting value).

Medicines and supplies.

Papers and magazines for waiting room.

Postage.

Professional journals.

Stationery.

Miscellaneous.

**Contributions.**

Charitable (charity funds, community chests, hospitals, Red Cross, tuberculosis seals, war relief funds).

Educational (cancer campaign, college endowments, etc.)

Religious.

Scientific.

Contributions or assessments paid to chambers of commerce and professional associations and made for business purposes.

Gifts required by your profession and given for business reasons.

Depreciation (to be determined by useful life of article).

Automobile (professional).

Furniture (office).

Equipment (office).

**Insurance premiums.**

Automobile (proportionate to business use).

Fire and theft on business property.

Malpractice.

Office or other professional equipment.

**Interest on indebtedness.**

On borrowed money.

Owed on lien or mortgage note on home.

Other notes.

**Losses.**

Fire, casualty and theft losses to the extent that they are not compensated for by insurance.



Faulty driving (but not willful negligence).

Damages, court costs and other expenses paid by you in connection with civil lawsuits concerning your profession.

#### Medical Expense.

Under a new ruling, medical expense in excess of 5 per cent of your income may be claimed as a deduction.

#### Miscellaneous.

Legal expense paid by you for drawing contract of your employment.

Miscellaneous or unusual expenses paid by you which were directly necessary to earn your income.

#### Society dues.

State Medical Society.

County Medical Society.

Other professional societies.

Civic clubs.

#### Travel.

Traveling expense to medical meetings and conventions is deductible, but the expense of attending postgraduate courses is not, nor is the expense of going to take an examination for certification by a special board.

#### Taxes.

Federal tax on admissions.

Gasoline (3c per gallon).

Narcotic license.

General property taxes.

Telephone and telegraph message taxes.

Social Security and unemployment taxes paid on employees.

State income tax for 1942.

Iowa sales tax of 2 per cent.

Federal tax on safety deposit box.

Federal auto tax—\$5.00.

#### Victory Tax

Doctors in military service must pay a five per cent victory tax the same as doctors in civilian practice. Not all items of income are subject to victory tax, however, even if they are subject to regular income tax. Items which need not be included in income for victory tax computation are: gains from sale or exchange of capital assets; exempt and partially exempt interest on U. S. obligations; and compensation for sickness or health where it has been included in income for purpose of the income tax.

Certain items cannot be deducted from income, also, in figuring victory tax. They are as follows:

1. Interest paid on anything not related to carrying on your profession or producing income. Interest on the mortgage on your home cannot be deducted.)
2. Taxes on property not connected with your business or the production of income. (Taxes on your home or personal automobile cannot be deducted.)
3. Capital losses or losses from sale of worthless securities.
4. Non-business bad debts.

5. Amortization of bond premiums.

6. Medical expense.

7. Amounts paid for interest, taxes, etc., to cooperative apartment corporations.

8. Deductions allowed estates on account of decedent's deductions.

Single persons are allowed a 25 per cent credit of the victory tax, married persons 40 per cent.

#### Physicians in Service

Physicians in the armed forces serving outside of the United States need not file a return. Physicians serving in this country must file a return, but need not pay the tax if doing so would work a hardship upon them and they request deferment of payment.

The armed forces are given special relief on their income tax. Beginning January 1, 1943, the first \$1,500.00 of their annual service pay is excluded from their income. This does not affect the regular personal exemption of every individual. In addition, all unpaid taxes of members of the armed forces are forgiven if death occurs in service. Third, when comparing their 1942 and 1943 income tax to figure "forgiveness," they can entirely omit that part of the 1942 income tax which represents tax on "earned income," provided that the 1943 tax is lower than the 1942 tax. This will be true for most physicians, since their income from private practice was probably greater than their income in the armed forces.

#### STATE INCOME TAX

It is possible that the special session of the Legislature called for January 26 will take some action with regard to the state income tax law, but until that does occur, the following holds true for state income tax returns.

#### Liability for filing return.

All single persons with net income of \$1,000.00 or more for 1943; all married persons with net income of \$1,500.00 for same period; and all persons with a gross income of \$3,000.00 or more.

#### Income.

Gross income includes the money received by the physician for services rendered, plus such money as he may receive from investments and speculation and other sources. Money received for services rendered prior to 1934, however, is not taxable.

#### Joint returns are allowable.

#### Credit for dependents.

\$5.00 for each dependent (subtracted from tax).

Personal exemption—\$10.00 deduction from tax for single person; \$20.00 deduction from tax for married couple.

#### Allowable Deductions

The following allowable deductions are the same as for federal income tax.

1. Automobile.
2. Business expense.

3. Office supplies.
4. Contributions.
5. Depreciation.
6. Insurance premiums.
7. Interest on indebtedness.
8. Losses.
9. Medical expense.
10. Miscellaneous.
11. Society dues.
12. Travel.
13. Taxes except income tax. Here you may deduct 1942 federal income tax rather than state.

The items which may be deducted in federal income tax returns and not in state are alimony and separate maintenance payments. In Iowa the person paying alimony or separate maintenance may not deduct this as an expense, and the recipient does not have to consider it as income.

#### Computation of Tax

Subtract allowable deductions from the gross income to obtain the net income figure. The tax rate is shown on the forms and is, briefly, 1 per cent on the first \$1,000.00, 2 per cent on the second \$1,000.00, etc. On incomes of \$4,000.00 or more, 5 per cent is paid. From the tax as figured a deduction of \$10.00 may be made for a single person, \$20.00 for a married couple, and \$5.00 for each dependent.

### MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

#### Meeting of the Committee on Maternal and Child Health

December 19, 1943

The Committee on Maternal and Child Health of the Iowa State Medical Society met in the central office Sunday morning, December 19, 1943, with the following persons present: Doctors H. E. Farnsworth, E. D. Plass, C. P. Phillips, R. H. McBride, L. F. Hill, L. R. Woodward, R. L. Parker, J. M. Hayek, and W. L. Bierring; and Mr. William Schultz of the State Department of Health.

The committee passed a resolution regarding child-spacing information which is to be presented to the House of Delegates, and then discussed the EMIC program fully. As a result of that discussion the following recommendation was made:

The Committee on Maternal and Child Health of the Iowa State Medical Society held its third meeting to discuss the EMIC Program December 19, 1943. At its first meeting April 29, 1943, the Committee, acting without full knowledge of all the factors involved in the proposed program, for patriotic reasons recommended to the House of Delegates that it approve the program. Accepting the recommendation of its Committee, and for the same reason, the House of Delegates without dissenting voice approved the program at the annual session held in Des Moines April 29 and 30, 1943.

However, as the details of the program unfolded in actual operation in the summer and fall months, certain of the administrative policies and restrictions

imposed by the Children's Bureau emerged in their full significance. These policies aroused criticisms and objections among physicians throughout the nation as well as in Iowa.

The Committee held its second meeting October 17, 1943, to consider the program in the light of information available at that time. It was especially incensed over the statement inserted in the application forms prohibiting physicians from accepting additional fees to those paid by the State agency regardless of the patient's ability and willingness to pay. The imposing of this restriction, the Committee felt, together with the proscribing by a federal governmental agency of what the physician's fee should be for his services and the payment to him direct by the government, constituted state medicine in actuality. Furthermore the Committee felt that it:

1. Deprived both physician and patient of their constitutional right to make their own financial arrangements for medical care, and
2. Revealed a surprising lack of confidence on the part of the Children's Bureau in the integrity and honor of the medical profession.

At this October meeting the Committee recommended to the Executive Council of the Iowa State Medical Society that it use every means available to obtain the removal of this objectionable clause from the application form, and that further cooperation in the program rest upon such action.

At its third meeting on December 19, 1943, the whole situation was again reviewed. Dr. Plass, who is a member of both the Committee on Maternal and Child Health and the Advisory Committee to the Children's Bureau, reported on the meeting held October 20 by the Advisory Committee and Children's Bureau officials. A report was also available concerning the hearing held before the Children's Bureau December 10 and 11 by representatives of several medical and other organizations which resulted from a resolution passed by the American Academy of Pediatrics. Cognizance was taken, too, of the action adopted at a meeting of five Pacific States. In addition, information of actions and attitudes from various other sources both within and without Iowa was available.

At the conclusion of its deliberations the Committee was unanimous that in view of the present confused state of affairs concerning the whole program, it would recommend to the Executive Council and to the Iowa State Medical Society:

1. That cooperation in the program continue as at present but under protest over objectionable administrative restrictions. That it be clearly understood that such continued cooperation is based solely upon patriotic grounds and a desire on the part of the medical profession to take no action which would in any way impede the war effort.
2. That complete sympathy on the part of the medical profession of Iowa be reiterated again toward the effort of Congress to provide the best quality possible of obstetric and pediatric care for the wives and infants of enlisted men.
3. That every effort be made to bring about modification of administrative policies to the end that such high type medical care may be insured to the wives and infants of servicemen who need it.
4. That cooperation with other groups be sought so that under effective medical leadership members of Congress may be fully informed concerning the views of the medical profession for their guidance in acting upon legislation for subsequent appropriations for the EMIC Program.

Various other matters in connection with the program were discussed; a project to distribute books on baby care to all mothers in the state was considered; and the meeting adjourned at two p. m.



**Meeting of the Committee on Medical Service and  
Public Relations  
January 2, 1944**

The Committee on Medical Service and Public Relations of the Iowa State Medical Society met in the central office Sunday morning, January 2, 1944, with the following doctors present: Ransom D. Bernard, chairman; John A. Thorson, Martin I. Olsen, Fred Sternagel, Ira N. Crow, and Robert L. Parker.

Dr. Bernard explained the function of the committee—to work with the similar Council of the American Medical Association and in addition to carry on a campaign against the Wagner-Murray Bill in Iowa. The best method of doing this was discussed; the state was divided into Congressional districts and a chairman appointed for each district. Preparation of material for speakers was allocated to different members, and other means of publicity were discussed. The meeting adjourned about noon.

**Meeting of the Board of Trustees  
January 9, 1944**

The Board of Trustees of the Iowa State Medical Society met in the central office Sunday morning, January 9, 1944, with the following doctors present: Trustees Oliver J. Fay and Walter A. Sternberg, and Editor Lee F. Hill.

Business transacted was as follows: Minutes were read and approved and bills were authorized; the budget for 1944 was set up; Journal matters were discussed and attendance at coming meetings by State Society officers was settled. Meeting adjourned about one p. m.

**NORTH CENTRAL CONFERENCE**

Representatives from Minnesota, Wisconsin, North and South Dakota, Nebraska and Iowa, the six states comprising the North Central Conference, met in St. Paul Sunday, January 9, to discuss problems affecting the medical profession in those states. Dr. R. G. Arveson of Frederick, Wisconsin, president of the conference, opened the meeting. Dr. G. Lombard Kelly, new secretary of the Council on Medical Service and Public Relations of the American Medical Association, was introduced and spoke briefly on the plans of the Council, and the following subjects were discussed thoroughly by those in attendance: The EMIC Program; the Bardon-LaFollette Act; the new Council on Medical Service and Public Relations and the still-existent need for a Washington office; post-war planning; and the program for the National Conference on Medical Science.

**ANNUAL CLINICAL CONFERENCE INAUGURATED BY CHICAGO MEDICAL SOCIETY**

The Council of the Chicago Medical Society, appreciating that Chicago is a medical center offering abundant clinical material and able clinicians, is sponsoring an Annual Clinical Conference at the Stevens Hotel, March 14, 15, 16 and 17.

Plans have been made for four intensive Post-

graduate Days consisting of half-hour lecture and clinic periods beginning at 8:00 a. m. and continuing until 5:30 p. m. each day, with intermissions for luncheons and inspection of technical and scientific exhibits. Several one-hour "panels" have been arranged. Popular subjects will be covered by specialists in their respective fields. A dinner will be held on Wednesday evening with a speaker of national reputation on some non-medical subject.

The Chicago Medical Society believes such a four-day conference will be helpful as a wartime measure to its members and to the profession of the Middle West. All scientific sessions will be held in the Grand Ballroom of the Stevens Hotel. Registration fee will be \$5.00.

It is advisable to make room reservations early.

**AMERICAN COLLEGE OF SURGEONS TO HOLD  
WAR SESSION IN DES MOINES**

Des Moines has been selected by the American College of Surgeons as headquarters for a one-day War Session to be held Saturday, March 4. Advancements in military medicine and developments in civilian medical research and practice under the spur of the war emergency will be presented by authorities representing governmental agencies and by civilian physicians and surgeons.

The meeting will be open to the profession at large, including medical officers of the Army and the Navy, residents, interns, medical students, and executive personnel in hospitals. For the latter special hospital conferences, to be held simultaneously with the scientific sessions, are being arranged.

The United States Army, Navy, Public Health Service, Veterans Administration, Procurement and Assignment Service, and the Office of Civilian Defense are assigning representatives to participate in the meetings. Experiences of medical officers who have been on active duty in combat zones will be especially featured. In the hospital conferences, such agencies as the War Production Board, the War Manpower Commission, the American Red Cross, and groups interested in student nurse recruitment, will be represented.

The meeting will be held at Hotel Fort Des Moines and will open at 8:30 a. m. with the showing of official U. S. Army and U. S. Navy films on medical and surgical subjects, such as evacuation of the wounded, fractures, bomb blast, burns, and treatment of wounds. From 9:30 to 11:30 Army and Navy representatives who have been on active duty abroad will report; from 11:30 to noon representatives of the Public Health Service will report on measures for the control of endemic and epidemic diseases. Current problems of the Procurement and Assignment Service will be presented by a representative at the luncheon conference from 12:15 to 2:00 o'clock. Between 2:15 and 5:00 p. m., three scientific presentations by medical members of the armed forces and by civilian members of the medical profession will be made; a scientific presentation will be made by a representa-

tive of a medical service in industry; and the program for veterans will be presented by a representative of the Veterans Administration. From 5:00 to 5:30 p. m. the need for protective services in time of war will be presented by a representative of the Office of Civilian Defense. The concluding session will be a dinner meeting and open forum with all participants in the day's program as the panel of experts to lead discussion of any and all subjects presented during the day together with other problems of interest to the medical and hospital professions. The motion picture showing, public health service session, luncheon conference, civilian defense program, and the dinner meeting and open forum will be attended by both the medical and hospital groups. The hospital representatives will discuss wartime hospital problems and how they are being solved, from 9:30 to 11:30 a. m., and will hold a round table conference on "Wartime Hospital Service" from 2:15 to 5:00 p. m.

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### NATIONAL CONFERENCE ON MEDICAL SERVICE

Dr. Louis H. Bauer of Hempstead, New York, Chairman of the new Council on Medical Service and Public Relations, will give the first platform report of the work of the new Council, to date, and an outline of plans for the future as one of the major features of the National Conference on Medical Service program to be held Sunday, February 13, at the Palmer House in Chicago.

Inasmuch as the progress of this Council, since its establishment by the House of Delegates of the American Medical Association last June, has been the subject of lively interest and debate among medical officials and journals in all parts of the country, this report of the responsible chairman is an important event to all who are interested in the public relations of medicine.

It will be followed, furthermore, by a panel discussion on the much discussed question of medical representation in Washington, subject of equally lively debate among medical association leaders. Taking part in this discussion will be Dr. Dwight H. Murray of California, Chairman of the newly formed Western States Public Health League made up of eleven western states, which has expressed its dissatisfaction with the Council and proposes to establish a Washington office to represent its member-states and any others who may wish to join them. Leaders from other states and state groups which have organized for separate action also are expected to be there and take part.

Dr. Roger I. Lee of Boston, Massachusetts, Chairman of the Board of Trustees of the American Medical Association, will be there to report for the Board which has formal jurisdiction over the new Council as over all other Councils of the American Medical Association.

Among the guest speakers will be Dr. Walter H.

Judd, physician-member of Congress from Minneapolis and one of the best known of younger members of the House, who will be present all day to listen to the discussions and tell the Conference what the outlook is in Washington today as a doctor and congressman views it.

President W. L. Burnap of Fergus Falls, Minnesota, has chosen the subject, "Medicine Plans for the Future," for his presidential address which will open the afternoon session.

A panel discussion on the subject "How Can We Improve Our Medical and Health Services for the American People?" will be staged as an important feature of the afternoon program if authoritative spokesmen for labor, industry, insurance companies and others which have concerned themselves with public health, several of whom have already been invited, can be present and participate.

Dr. C. L. Palmer of Pittsburgh, Secretary of the Conference, is in charge of program arrangements. Dr. W. L. Burnap of Fergus Falls, Minnesota, 1944 President, will act as presiding officer. Every member who can possibly arrange to be present is urged to attend.

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### SIXTH ANNUAL CONGRESS ON INDUSTRIAL HEALTH

The Sixth Annual Congress on Industrial Health, sponsored by the Council on Industrial Health of the American Medical Association, will be held Tuesday and Wednesday, February 15 and 16, at the Palmer House in Chicago. This meeting follows directly after that of the Congress on Medical Education and Licensure. Physicians and others interested in industrial health are cordially invited. There is no registration fee.

A most interesting and worthwhile program has been arranged for the meeting, the preliminary draft of which was published in the January 22 issue of *The Journal of the American Medical Association*, page 240.

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### SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:05 p. m.

WSUI—Thursdays at 9:00 a. m.

February 2-3 Pneumonia

Howard L. VanWinkle, M.D.

February 9-10 Venereal Disease

Andrew C. Woofert, M.D.

February 16-17 Winter Health Hazards

Melvin G. Bourne, M.D.

February 23-24 Conserve Your Doctor's Health

Bernard B. Parker, M.D.



## COUNTY MEDICAL SOCIETY OFFICERS

COUNTY	PRESIDENT	SECRETARY	DEPUTY COUNCILOR
Adair.....	R. E. Wiley, Fontanelle.....	A. S. Bowers, Orient.....	A. S. Bowers, Orient
Adams.....	Frederick Binder, Corning.....	J. H. Wallahan, Corning.....	W. F. Amdor, Carbon
Allamakee.....	F. W. Ernst, New Albin.....	J. W. Thornton, Lansing.....	J. W. Thornton, Lansing
Appanoose.....	J. C. Donahue, Centerville.....	R. L. Fenton, Centerville.....	C. S. Hickman, Centerville
Audubon.....	P. E. James, Elkhorn.....	W. H. Halloran, Audubon.....	L. E. Jensen, Audubon
Benton.....	N. B. Williams, Belle Plaine.....	D. A. Dutton, Van Horne.....	N. B. Williams, Belle Plaine
Black Hawk.....	E. E. Magee, Waterloo.....	S. A. Barrett, Waterloo.....	A. J. Joynet, Waterloo
Boone.....	A. B. Deering, Boone.....	B. T. Whitaker, Boone.....	J. O. Ganoe, Ogden
Bremer.....	O. C. Hardwig, Waverly.....	M. N. Gernsey, Waverly.....	F. R. Sparks, Waverly
Buchanan.....	N. L. Hersey, Independence.....	J. W. Barrett, Jr., Independence.....	C. W. Tidball, Independence
Buena Vista.....	A. B. Carstensen, Linn Grove.....	T. R. Campbell, Sioux Rapids.....	H. E. Farnsworth, Storm Lake
Butler.....	J. G. Evans, New Hartford.....	F. F. McKean, Allison.....	Bruce Ensley, Shell Rock
Calhoun.....	W. C. Kennedy, Somers.....	D. C. Carver, Rockwell City.....	R. G. Hinrichs, Manson
Carroll.....	A. R. Anneberg, Carroll.....	P. D. Anneberg, Carroll.....	W. L. McConkie, Carroll
Cass.....	G. A. Alliband, Atlantic.....	E. C. Montgomery, Atlantic.....	W. S. Greenleaf, Atlantic
Cedar.....	Fred Montz, Lowden.....	E. E. Smith, Clarence.....	E. J. Van Metre, Tipton
Cerro Gordo.....	H. W. Morgan, Mason City.....	R. E. Smiley, Mason City.....	
Cherokee.....	J. H. Wise, Cherokee.....	D. C. Koser, Cherokee.....	C. H. Johnson, Cherokee
Chickasaw.....	Nicholas Schilling, New Hampton.....	J. E. Murtatugh, New Hampton.....	P. E. Gardner, New Hampton
Clarke.....	F. S. Bowen, Woodburn.....	F. E. Bates, Osceola.....	H. E. Stroy, Osceola
Clay.....	T. W. Swallum, Spencer.....	C. C. Colleston, Spencer.....	J. M. Sokol, Spencer
Clayton.....	G. W. Tapper, Monona.....	P. R. V. Hommel, Elkader.....	P. R. V. Hommel, Elkader
Clinton.....	R. F. Luse, Clinton.....	E. V. Donlan, Clinton.....	R. F. Luse, Clinton
Crawford.....	E. V. Zaeske, Charter Oak.....	Dora E. K. Zaeske, Charter Oak.....	L. S. Sievers, Denison
Dallas-Guthrie.....	W. V. Thornburg, Guthrie Center.....	S. J. Brown, Panora.....	E. J. Butterfield, Dallas Center
			S. J. Brown, Panora
Davis.....	C. H. Cronk, Bloomfield.....	H. C. Young, Bloomfield.....	H. C. Young, Bloomfield
Decatur.....	J. W. Wailes, Davis City.....	M. W. Rogers, Leon.....	
Delaware.....	C. B. Rogers, Earlville.....	Paul Stephen, Manchester.....	J. K. Stepp, Manchester
Des Moines.....	E. P. Russell, Burlington.....	H. F. Hosford, Burlington.....	F. G. Ober, Burlington
Dickinson.....	P. G. Grimm, Spirit Lake.....	Ruth F. Wolcott, Spirit Lake.....	T. L. Ward, Arnolds Park
Dubuque.....	J. A. Thorson, Dubuque.....	K. K. Hazlet, Dubuque.....	J. C. Painter, Dubuque
Emmett.....	C. E. Birney, Estherville.....	L. W. Loving, Estherville.....	S. C. Kirkegaard, Ringsted
Fayette.....	C. C. Hall, Maynard.....	A. F. Grandinetti, Oelwein.....	C. C. Hall, Maynard
Floyd.....	L. S. Wentworth, Marble Rock.....	R. A. Fox, Charles City.....	R. A. Fox, Charles City
Franklin.....	J. C. Powers, Hampton.....	F. L. Siberts, Hampton.....	J. C. Powers, Hampton
Fremont.....	Ralph Lovelady, Sidney.....	A. E. Wanamaker, Hamburg.....	A. E. Wanamaker, Hamburg
Greene.....	W. E. Chase, Rippey.....	J. R. Black, Jefferson.....	O. C. Lohr, Churdan
Grundy.....	Varina Des Marias, Grundy Center.....	H. L. Mol, Grundy Center.....	W. O. McDowell, Grundy Center
Hamilton.....	E. F. Rambo, Webster City.....	M. B. Galloway, Webster City.....	M. B. Galloway, Webster City
Hancock-Winnebagos.....	O. V. Hamilton, Garner.....		T. J. Irish, Forest City
Hardin.....	G. A. Blaha, Whitten.....	W. E. Marsh, Eldora.....	F. N. Cole, Iowa Falls
Harrison.....	R. H. Cutler, Little Sioux.....	F. H. Hanson, Magnolia.....	C. S. Kennedy, Logan
Henry.....	S. W. Huston, Mt. Pleasant.....	J. S. Jackson, Mt. Pleasant.....	S. W. Huston, Mt. Pleasant
Howard.....	W. A. Bockoven, Cresco.....	F. E. Giles, Cresco.....	W. A. Bockoven, Cresco
Humboldt.....	L. R. Turner, Renwick.....	C. A. Newman, Bode.....	I. T. Schultz, Humboldt
Ida.....	H. H. Harris, Battle Creek.....	W. P. Crane, Holstein.....	E. S. Parker, Ida Grove
Iowa.....	E. L. Hollis, Marengo.....	J. J. Sinn, Williamsburg.....	I. J. Sinn, Williamsburg
Jackson.....	B. B. Dwyer, Preston.....	F. J. Swift, Maquoketa.....	
Jasper.....	R. F. Frech, Newton.....	T. D. Wright, Newton.....	R. W. Wood, Newton
Jefferson.....	K. G. Cook, Fairfield.....	I. N. Crow, Fairfield.....	I. N. Crow, Fairfield
Johnson.....	A. L. Sals, Iowa City.....	R. H. Flocks, Iowa City.....	G. C. Albright, Iowa City
Jones.....	J. D. Paul, Anamosa.....	C. R. Smith, Onslow.....	T. M. Redmond, Monticello
Keokuk.....	T. J. G. Dulin, Sigourney.....	John Maxwell, What Cheer.....	C. L. Heald, Sigourney
Kossuth.....	J. W. McCreery, Whittemore.....	M. G. Bourne, Algona.....	J. N. Kenefick, Algona
Lee.....	W. M. Hogle, Keokuk.....	H. F. Noble, Fort Madison.....	R. L. Feightner, Ft. Madison
			B. L. Gilfillan, Keokuk
Linn.....	J. K. von Lackum, Cedar Rapids.....	R. J. Stephen, Cedar Rapids.....	B. F. Wolverton, Cedar Rapids
Louisa.....	O. A. Kabrick, Grandview.....	L. E. Weber, Wapello.....	J. H. Chittum, Wapello
Lucas.....	C. F. Goltry, Russell.....	R. E. Anderson, Chariton.....	S. L. Throckmorton, Chariton
Lyon.....	L. L. Corcoran, Rock Rapids.....	F. B. O'Leary, George.....	L. L. Corcoran, Rock Rapids
Madison.....	H. E. Carver, Earlham.....	E. M. Olson, Winterset.....	C. B. Hickenlooper, Winterset
Mahaska.....	P. M. Day, Oskaloosa.....	F. A. Gillett, Oskaloosa.....	L. F. Catterson, Oskaloosa
Marion.....	E. D. Bell, Pleasantville.....	D. S. Brubank, Pleasantville.....	E. C. McClure, Bussey
Marshall.....	L. F. Talley, Marshalltown.....	G. M. Johnson, Marshalltown.....	A. D. Woods, State Center
Mills.....	T. B. Lacey, Glenwood.....	U. Parsons, Malvern.....	D. W. Harman, Glenwood
Mitchell.....	J. C. Westenberger, St. Ansgar.....	M. O. Eiel, Osage.....	T. S. Walker, Riceville
Monona.....	J. S. Deering, Onawa.....	E. E. Gingles, Onawa.....	
Monroe.....	J. F. Stafford, Lovilia.....	T. A. Moran, Melrose.....	T. A. Moran, Melrose
Montgomery.....	Gladys Cooper, Red Oak.....	Velura E. Powell, Red Oak.....	W. S. Reiley, Red Oak
Muscatine.....	L. C. Howe, Muscatine.....	J. L. Klein, Jr., Muscatine.....	T. F. Beveridge, Muscatine
O'Brien.....	Cornelius Maris, Sanborn.....	W. S. Balkema, Sheldon.....	W. R. Brock, Sheldon
Osceola.....	E. P. Farnum, Sibley.....	H. B. Paulsen, Harris.....	Frank Reinsch, Ashton
Page.....	E. J. Gottsch, Shenandoah.....	N. M. Johnson, Clarinda.....	W. H. Maloy, Shenandoah
Palo Alto.....	H. M. Huston, Ruthven.....	P. O. Nelson, Emmetsburg.....	H. L. Brereton, Emmetsburg
Plymouth.....	M. J. Joynet, Le Mars.....	L. C. O'Toole, Le Mars.....	W. L. Downing, Le Mars
Pocahontas.....	W. E. Gower, Pocahontas.....	G. A. Everson, Rolfe.....	J. H. Hovenden, Laurens
Polk.....	C. B. Luginbuhl, Des Moines.....	E. W. Anderson, Des Moines.....	J. B. Synhorst, Des Moines
Pottawattamie.....	E. B. Floersch, Council Bluffs.....	G. V. Caughlan, Council Bluffs.....	G. N. Best, Council Bluffs
Poweshiek.....	W. B. Phillips, Montezuma.....	C. E. Harris, Grinnell.....	C. E. Harris, Grinnell
Ringgold.....	O. L. Fullerton, Redding.....	J. W. Hill, Mt. Ayr.....	E. J. Watson, Diagonal
Sac.....	C. D. Gibson, Lake View.....	J. W. Gauger, Early.....	J. R. Dewey, Schaller
Scott.....	M. M. Benfer, Davenport.....	L. J. Miltner, Davenport.....	A. P. Donohoe, Davenport
Shelby.....	J. P. McGowan, Harlan.....	Alfred Sorensen, Harlan.....	A. L. Nielson, Harlan
Sioux.....	A. L. Lock, Rock Valley.....	Wm. Doornink, Orange City.....	J. G. de Bey, Orange City
Story.....	A. N. Schanche, Ames.....	W. B. Armstrong, Ames.....	Bush Houston, Nevada
Tama.....	C. E. Knight, Garwin.....	C. W. Maplethorpe, Toledo.....	A. A. Pace, Toledo
Taylor.....	C. E. Buckley, Blockton.....	J. H. Gasson, Bedford.....	G. W. Rimel, Bedford
Union.....	A. F. Watts, Creston.....	C. E. Sampson, Creston.....	H. G. Beatty, Creston
Van Buren.....	Roscoe Pollock, Douds-Leando.....	J. A. Craig, Keosauqua.....	L. A. Coffin, Farmington
Wapello.....	G. C. Blome, Ottumwa.....	L. A. Taylor, Ottumwa.....	E. B. Hoeven, Ottumwa
Warren.....	G. A. Jardine, New Virginia.....	C. H. Mitchell, Indianola.....	C. H. Mitchell, Indianola
Washington.....	F. M. Mahin, Ainsworth.....	W. S. Kyle, Washington.....	M. L. McCreedy, Brighton
Wayne.....	D. R. Ingraham, Sewal.....	C. F. Brubaker, Corydon.....	L. B. Calbreath, Humeston
Webster.....	E. M. Kersten, Fort Dodge.....	P. C. Otto, Fort Dodge.....	H. E. Nelson, Dayton
Winnebago.....	V. J. Horton, Calmar.....	R. M. Dahlquist, Decorah.....	L. C. Kuhn, Decorah
Woodbury.....	R. N. Larimer, Sioux City.....	F. D. McCarthy, Sioux City.....	P. D. Knott, Sioux City
Worth.....		M. P. Allison, Northwood.....	S. S. Westly, Manly
Wright.....	G. E. Schnug, Dows.....	J. R. Christensen, Eagle Grove.....	J. H. Sams, Clarion

# Roster of Iowa Physicians in Military Service

As of January 25, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO Los Angeles, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (Camp Maxey, Tex.) ..... Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) ..... Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.) ..... A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) ..... Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Trenton, N. J.) ..... Capt., A.U.S.  
Huston, M. D., Centerville (Kansas City, Mo.) ..... Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 726, Seattle, Wash.) ..... Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (Camp Howze, Texas) ..... 1st Lt., A.U.S.  
Bickley, J. W., Waterloo (Fort Sill, Okla.) ..... 1st Lt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas) ..... Lt. Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Ellyson, C. D., Waterloo (Lido Beach, N. Y.) ..... Lt., U.S.N.R.  
Ericsson, M. G., Cedar Falls (Camp Barkeley, Tex.) ..... Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.) ..... Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (McClellan Field, Ala.) ..... 1st Lt., A.U.S.  
Ludwick, A. L., Waterloo (APO 813, New York, N. Y.) ..... Capt., A.U.S.  
Marquis, F. M., Waterloo (APO 180, Los Angeles, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Des Moines, Ia.) ..... Lt. Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.) ..... Capt., A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.) ..... Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Ames, Iowa) ..... Lt., U.S.N.R.

## Boone County

Brewster, E. S., Boone (Camp Chaffee, Ark.) ..... Major, A.U.S.  
Healy, M. J., Boone  
Shane, R. S., Pilot Mound (Des Moines, Ia.) ..... Lt. Col., A.U.S.

## Bremer County

Amle, P. J., Tripoli (Iowa City, Iowa)  
Blum, O. S., Waverly (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.) ..... Capt., A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.) ..... 1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.) ..... Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (Camp Rucker, Ala.) ..... Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.) ..... Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho) ..... Lt., U.S.N.R.  
Maillard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) ..... Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.) ..... Major, A.U.S.

## Butler County

Anderson, B. V., Greene (Fleet PO, Seattle, Wash.) ..... Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rofis, F. O., Parkersburg (Springfield, Mo.) ..... 1st Lt., A.U.S.

## Calhoun County

Grinley, A. V., Rockwell City (APO 507, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.) ..... Capt., A.U.S.  
Peek, L. H., Lake City (Jefferson Barracks, Mo.) ..... Capt., A.U.S.  
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (Camp Carson, Colo.) ..... 1st Lt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Barkeley, Texas)  
Anneberg, W. A., Carroll  
Cochran, J. L., Carroll (Gulfport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Camp Maxey, Texas) ..... Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.) ..... Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.) ..... A.U.S.  
Tindall, R. N., Coon Rapids (APO 948, Seattle, Wash.) ..... Major, A.U.S.  
Wyatt, M. R., Manning (Camp Campbell, Ky.) ..... Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (Omaha, Nebr.) ..... Major, A.U.S.  
Longstreth, C. M., Atlantic (Norman, Okla.) ..... Lt. Comdr., U.S.N.R.  
Needles, R. M., Atlantic (Spokane, Wash.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.) ..... Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) ..... Lt., U.S.N.R.  
Mosher, M. L., West Branch (Camp Gruber, Okla.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Camp Polk, La.) ..... Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Brigham City, Utah) ..... Capt., A.U.S.  
Egloff, W. C., Mason City (Scottsdale, Ariz.)  
Flickinger, R. R., Mason City (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
Hale, A. E., Dougherty (Camp Hale, Colo.)  
Harris, R. H., Mason City ..... Capt., A.U.S.  
Harrison, G. E., Mason City (Boston, Mass.) ..... Col., A.U.S.  
Moulahan, J. E., Mason City (APO 839, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 758, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (Santa Ana, Cal.)  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (APO New York, N. Y.)

## Cherokee County

Bullock, G. D., Washta (Camp Livingston, La.) ..... Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Swift, C. H., Jr., Marcus (Fort Bliss, Texas) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (Denver, Colo.) ..... Capt., A.U.S.  
Murphy, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (Camp Gruber, Okla.) ..... Capt., A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.

## Clay County

Adams, G. W., Royal (Fort Clayton, Panama Canal Zone)  
Edington, F. D., Spencer (Lowry Field, Colo.) ..... Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.) ..... Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Rhomberg, E. B., Guttenberg (Camp Wallace, Texas) ..... Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Portland, Ore.) ..... Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.) ..... A.U.S.  
Christensen, E. D., Grand Mound (Iowa City)  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) ..... Capt., A.U.S.  
Hill, D. E., Clinton (Nashville, Tenn.) ..... Capt., A.U.S.  
King, R. C., Clinton (APO 185, Los Angeles, Cal.) ..... Capt., A.U.S.  
Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Meyer, A. K., Clinton (Denver, Colo.)  
Norment, J. E., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Riedesel, E. V., Wheatland (Fort Douglas, Utah)  
Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
Snyder, D. C., De Witt  
Van Epps, E. F., Clinton (Palm Springs, Cal.) ..... Capt., A.U.S.  
Waggoner, C. V., Clinton (San Bruno, Cal.) ..... Lt. Comdr., U.S.N.R.

## Crawford County

Fee, C. H., Denison (Dunnellon, Fla.) ..... Capt., A.U.S.  
Grau, A. H., Denison ..... Lt. Comdr., U.S.N.R.  
Maire, E. J., Vail (San Francisco, Cal.)  
Wetrich, M. F., Manilla (San Antonio, Tex.)

## Dallas-Guthrie Counties

Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) ..... Major, A.U.S.  
Fail, C. S., Adel (Pacific Beach, Wash.) ..... Lt., U.S.N.R.  
Margolin, J. M., Perry (Camp Cooke, Cal.) ..... Capt., A.U.S.



McGivra, R. I., Guthrie Center (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Mullmann, A. J., Adel (Milwaukee, Wis.).....Capt., A.U.S.  
 Nicoll, C. A., Panora (Camp Chaffee, Ark.).....Capt., A.U.S.  
 Osborn, C. R., Dexter (San Francisco, Cal.).....Lt., U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.).....Capt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.).....Capt., A.U.S.

#### Davis County

Fenton, C. D., Bloomfield (Camp Ellis, Ill.).....Capt., A.U.S.  
 Gilfillan, G. W., Bloomfield (Oceanside, Cal.).....Lt. Comdr., U.S.N.R.

#### Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.).....Capt., A.U.S.

#### Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.).....Capt., A.U.S.  
 Clark, R. E., Manchester (APO 419, New York, N. Y.).....Capt., A.U.S.

#### Des Moines County

Eigenfeld, M. L., Burlington (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.).....Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.).....Lt. Col., A.U.S.  
 Lehmann, C. J., Burlington (Fort Lewis, Wash.).....Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.).....Comdr., U.S.N.R.  
 Moeke, R. F., Burlington (Abilene, Texas).....Capt., A.U.S.  
 Sage, E. C., Burlington.....Lt. Comdr., U.S.N.R.

#### Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Henning, G. G., Milford (Camp Adair, Ore.).....Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.).....Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake (APO New York, N. Y.).....Capt., A.U.S.

#### Dubuque County

Beddoes, M. G., Cascade (APO 932, San Francisco, Cal.).....Capt., A.U.S.  
 Conzett, D. C., Dubuque (Fort Riley, Kan.).....Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio).....Capt., A.U.S.  
 Edstrom, Henry, Dubuque (Clinton, Iowa).....Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.).....Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas).....1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.).....Major, A.U.S.  
 Langford, W. R., Epworth (APO 948, Seattle, Wash.).....Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.).....Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.).....1st Lt., A.U.S.  
 Mueller, J. J., Dubuque (Hattiesburg, Miss.).....1st Lt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.).....Lt. (ig), U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.).....Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.).....Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.).....Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.).....1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.).....Major, A.U.S.  
 Smith, C. W., Dubuque (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.).....Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas).....Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Rochester, Minn.).....Lt. Comdr., U.S.N.R.

#### Emmet County

Clark, J. P., Estherville (APO New York, N. Y.).....Capt., A.U.S.  
 Collins, L. E., Estherville.....A.U.S.  
 Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

#### Fayette County

Camp, D. E., West Union (Camp Blanding, Fla.).....Capt., A.U.S.  
 Gallagher, J. P., Oelwein (Pensacola, Fla.).....Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.).....Major, A.U.S.  
 Hess, A. M., West Union (Albuquerque, N. Mex.).....1st Lt., A.U.S.  
 Moen, H. P., West Union (Camp Barkeley, Texas).....Capt., A.U.S.  
 Sulzbach, J. F., Oelwein  
 Walsh, W. E., Hawkeye (Great Lakes, Ill.).....Lt. Comdr., U.S.N.R.

#### Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.).....Major, A.U.S.  
 Flater, N. C., Floyd (APO Los Angeles, Cal.).....Capt., A.U.S.  
 Knight, R. A., Rockford (San Diego, Cal.).....Lt., U.S.N.R.  
 Mackie, D. G., Charles City (Great Bend, Kan.).....1st Lt., A.U.S.  
 Miner, J. B., Jr., Charles City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (San Pedro, Cal.).....Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.).....1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (care PM, San Francisco, Cal.).....Lt., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.).....Lt., U.S.N.R.  
 Walton, S. G., Hampton (Camp Robinson, Ark.).....1st Lt., A.U.S.

#### Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.).....Capt., A.U.S.  
 Marrs, W. D., Tabor (Wright Field, Ohio).....Capt., A.U.S.  
 Wanamaker, A. R., Hamburg (Los Angeles, Cal.).....Capt., A.U.S.

#### Greene County

Cartwright, F. P., Grand Junction (Boise, Idaho).....Capt., A.U.S.  
 Castles, W. A., Jr., Rippey (APO San Francisco, Cal.).....Capt., A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.).....Capt., A.U.S.  
 Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Limberg, J. I., Jr., Jefferson (APO 503 San Francisco, Cal.).....Major, A.U.S.  
 Lohr, P. E., Churdan (San Diego, Cal.).....A.U.S.

#### Grundy County

Rose, J. E., Grundy Center (Norman, Okla.).....Lt. Comdr., U.S.N.R.

#### Hamilton County

Buxton, O. C., Webster City (Port Angeles, Wash.).....1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.).....Major, A.U.S.  
 James, D. W., Kamrar (APO 700, New York, N. Y.).....Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 763, New York, N. Y.).....Capt., A.U.S.  
 Mooney, F. P., Jewell (London, England).....Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Barkeley, Texas).....Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (Greenwood, S. Car.).....A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.).....Capt., A.U.S.

#### Hancock-Winnebagos Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.).....Capt., A.U.S.  
 Dulmes, A. H., Klemme (Camp Cooke, Cal.).....Capt., A.U.S.  
 Eller, L. W., Kanawha (APO 302, New York, N. Y.).....Capt., A.U.S.  
 Irish, T. J., Forest City (Farragut, Idaho).....Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Tucson, Ariz.).....A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.).....Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Mare Island, Cal.).....Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.).....1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.).....Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Lawton, Okla.).....Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.).....1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Long Beach, Cal.).....Lt., U.S.N.R.  
 Todd, V. S., Eldora (Camp Cooke, Cal.).....Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Benning, Ga.).....A.U.S.  
 Burbridge, G. E., Logan (Ft. Benning, Ga.).....Major, A.U.S.  
 Byrnes, C. W., Dunlap (Jefferson Barracks, Mo.)  
 Heise, C. A., Jr., Missouri Valley  
 Tamisiea, F. X., Missouri Valley (Jefferson Barracks, Mo.).....Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.).....Major, A.U.S.  
 Dwankowski, Carl, Mt. Pleasant (APO 807, New York, N. Y.).....1st Lt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (Fort McPherson, Ga.).....Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (Yuma, Ariz.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (Clinton, Iowa).....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 261, Los Angeles, Cal.).....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Fresno, Cal.).....1st Lt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 4713, San Francisco, Cal.).....Capt., A.U.S.  
 Martin, J. W., Holstein (Montgomery, Ala.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Clark, Texas).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (Camp Atterbury, Ind.).....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

**Jefferson County**

Castell, J. W., Fairfield (Fort Devens, Mass.).....Capt., A.U.S.  
 Gittler, Ludwig, Fairfield (APO 1001, New York,  
 N. Y.).....Major, A.U.S.  
 Graber H. E., Fairfield (Carlisle Barracks, Penn.) Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

**Johnson County**

Agnew, J. W., Iowa City (Fort Meade, S. Dak.)....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (Clinton, Iowa).....Major, A.U.S.  
 Boiler, W. F., Iowa City (Fort Leonard Wood,  
 Mo.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.

Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (El Toro, Cal.).....Lt., U.S.N.R.  
 Cooper, W. K., Iowa City (Jefferson Barracks, Mo.) Capt., A.U.S.  
 Crowell, E. A., Iowa City (Randolph Field, Tex.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Key West, Fla.).....Lt., U.S.N.R.  
 Dörner, R. A., Iowa City (APO 534, New York,  
 N. Y.).....Capt., A.U.S.

Elmquist, H. S., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt., U.S.N.R.  
 Emmons, H. S., Iowa City (Abilene, Texas).....Capt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourn, A. S., Iowa City (APO 34, New York,  
 N. Y.).....Lt. Col., A.U.S.

Francis, N. L., Iowa City (Annapolis, Md.) Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York,  
 N. Y.).....Major, A.U.S.

Hardin, R. C., Iowa City (APO 508, New York,  
 N. Y.).....Capt., A.U.S.

Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (Pepperell, Mass.).....1st Lt., A.U.S.  
 Irwin, R. L., Iowa City (Iowa City, Iowa).....Lt. Comdr., U.S.N.R.  
 January, L. E., Iowa City (McCook, Nebr.).....Capt., A.U.S.  
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt. (jg), U.S.N.R.

Longwell, F. H., Iowa City (APO 505, New York,  
 N. Y.).....Capt., A.U.S.

Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagrffy, S. F., Iowa City (Memphis, Tenn.).....Lt. (jg), U.S.N.R.  
 Newman, R. W., Iowa City (Fleet PO, New York,  
 N. Y.).....Lt., U.S.N.R.

Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 1001, New York,  
 N. Y.).....Lt. Col., A.U.S.

Petersen, V. W., Iowa City (APO 689, New York,  
 N. Y.).....Col., A.U.S.

Sells, R. L., Jr., Iowa City (South San Francisco,  
 Cal.).....Capt., A.U.S.

Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....1st Lt., A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.  
 Stump, R. B., Iowa City (Fort Leonard Wood,  
 Mo.).....Capt., A.U.S.

Titus, E. L., Iowa City (Fort Banks, Mass.).....Col., A.U.S.  
 Trepasso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.  
 Trussell, R. E., Iowa City (Philadelphia, Pa.).....1st Lt., A.U.S.

Vest, W. M., Iowa City (APO 928, San Francisco,  
 Cal.).....Capt., A.U.S.

Ward, R. H., Iowa City (Iowa City, Iowa).....U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 7278, San Francisco,  
 Cal.).....1st Lt., A.U.S.

Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

**Junior Members**

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.) Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.  
 Brintnall, E. S., Iowa City (Colorado Springs,  
 Colo.).....1st Lt., A.U.S.

Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.

Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Donnelly B. A., Iowa City (APO San Francisco,  
 Cal.).....1st Lt., A.U.S.

Ehrenhaft, J. L., Iowa City (APO New York,  
 N. Y.).....1st Lt., A.U.S.

Englerth, F. L., Iowa City (APO San Francisco,  
 Cal.).....Capt., A.U.S.

Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.

Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.  
 Harms, G. E., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.

Hendricks, A. B., Iowa City (Farragut, Idaho).....Lt., U.S.N.  
 Hovis, Wm., Iowa City (San Diego, Cal.).....Lt. (jg), U.S.N.R.  
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.

Jacobs, C. A., Iowa City (APO New York, N. Y.) Major, A.U.S.  
 Kaplan, Nathan, Iowa City (Carlisle Bar-  
 racks, Pa.).....1st Lt., A.U.S.

Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Treasure Island,  
 Cal.).....Lt. (jg), U.S.N.R.

Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.

Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.

McCann, J. P., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.

McQuiston, W. O., Iowa City (APO San Francisco,  
 Cal.).....Capt., A.U.S.

Moen, B. H., Iowa City  
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.

Odell, Lester, Iowa City (Alameda, Cal.).....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.) 1st Lt., A.U.S.

Pulliam, R. L., Iowa City (Portland, Ore.).....Major, A.U.S.  
 Randall, C. G., Iowa City  
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt. A.U.S.

Rosenbusch, M., Iowa City (Fort Leonard Wood,  
 Mo.).....1st Lt., A.U.S.

Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.

Sattelle, W. W., Iowa City.....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.

Shand, J. A., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.

Shapiro, S. I., Iowa City  
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.

Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.  
 Skouge, O. T., Iowa City

Towle, R. A., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt., U.S.N.R.

Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.  
 Watters, V. G., Iowa City (Fort Leonard Wood,  
 Mo.).....1st Lt., A.U.S.

Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.  
 Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.

Willumsen, H. C., Iowa City (Chico, Cal.).....Capt., A.U.S.  
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.

Yetter, W. L., Iowa City (APO New York, N. Y.) Capt., A.U.S.  
 Zahrt, N. E., Iowa City (Miami Beach, Fla.).....1st Lt., A.U.S.

Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

**Keokuk County**

Bjork, Floyd, Keota.....A.U.S.  
 Doyle, J. L., Sigourney (Camp Berkeley, Texas).....A.U.S.

Engelmann, A. T., What Cheer (Camp Polk, La.) Capt., A.U.S.  
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.

Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.)

**Kossuth County**

Clapsaddle, D. W., Burt (Ft. Benning, Ga.).....1st Lt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.

Williams, R. L., Lakota (San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.

**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (APO 726, Seattle, Wash.).....Capt., A.U.S.

Cooper, R. E., Keokuk (Fort Riley, Kan.).....A.U.S.  
 Johnstone, A. A., Keokuk (Camp Robinson, Ark.).....Col., A.U.S.

McKee, T. L., Keokuk (APO 922, San Francisco,  
 Mo.).....Major, A.U.S.

Pumphrey, L. C., Keokuk (Ft. Leonard Wood,  
 Mo.).....Major, A.U.S.

Rankin, J. R., Keokuk (Fleet PO, New York,  
 N. Y.).....Lt., U.S.N.R.

Richmond, A. C., Fort Madison (Treasure Island,  
 Cal.).....Lt. Comdr., U.S.N.R.

Steffey, F. L., Keokuk (Fort Snelling, Minn.)  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.).....Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.).....Major, A.U.S.  
 Berney, P. W., Cedar Rapids (San Francisco, Cal.) Capt., A.U.S.

Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.).....1st Lt., A.U.S.

Chapman, R. M., Cedar Rapids (Chicago, Ill.).....Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.).....A.U.S.

Courter, W. O., Springville (APO 464, New York,  
 N. Y.).....Capt., A.U.S.

Crew, P. I., Marion (Monroe, La.).....Capt., A.U.S.



Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Lt. Cmdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (Camp Rucker, Ala.) Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO 957, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 34, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

#### Lyon County

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Capt., A.U.S.  
 †Corcoran, T. E., Rock Rapids (APO New York, N. Y.) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 700, New York, N. Y.) ..... Capt., A.U.S.

#### Madison County

Boden, H. M., Truro (Fresno, Cal.) ..... Capt., A.U.S.  
 Chesnut, P. F., Winterset (Salem, Ore.) ..... Lt. Col., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Capt., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.

#### Mahaska County

Bennett, G. W., Oskaloosa (Fort Riley, Kan.) ..... Major, A.U.S.  
 Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Norman, Okla.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Lemon, K. M., Oskaloosa ..... 1st Lt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 81, Los Angeles, Cal.) ..... 1st Lt., A.U.S.

#### Marion County

Elliott, V. J., Knoxville (Portland, Ore.) ..... Capt., A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Bastrop, Texas) ..... 1st Lt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

#### Marshall County

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) Major, A.U.S.  
 Meyer, M. G., Marshalltown (Fort Ethan Allen, Vt.) Major, A.U.S.  
 Noonan, J. J., Marshalltown (San Diego, Cal.) ..... Major, A.U.S.  
 Phelps, R. E., State Center (APO 730, Seattle, Wash.) Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (Gowen Field, Idaho) Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (Portland, Ore.) ..... Capt., A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (Fort Riley, Kan.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

#### Mills County

DeYoung, W. A., Glenwood (APO 813, New York, N. Y.) ..... Capt., A.U.S.  
 Magaret, E. C., Glenwood (APO 462, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 4913, New York, N. Y.) ..... Capt., A.U.S.

#### Mitchell County

Culbertson, R. A., St. Ansgar (Fort Knox, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (Camp Mackall, N. C.) ..... Major, A.U.S.  
 Owen, W. E., Osage (San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

#### Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... A.U.S.  
 Anderson, S. N., Onawa (San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 4759, San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 Gaukel, L. A., Onawa (APO 937, Seattle, Wash.) ..... 1st Lt., A.U.S.  
 †Harlan, M. E., Onawa (care PM, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Rosecrans, Cal.) ..... A.U.S.  
 Wainwright, M. T., Mapleton (APO 939, Seattle, Wash.) ..... A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

#### Monroe County

Heimann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Capt., A.U.S.  
 Smith, R. A., Albia (San Antonio, Texas) ..... 1st Lt., A.U.S.

#### Montgomery County

Bastron, H. C., Red Oak (Warner Robins, Ga.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) ..... Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... 1st Lt., A.U.S.

#### Muscatine County

Ady, A. E., West Liberty (Pensacola, Fla.) Lt. Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Kalamazoo, Mich.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) Lt. Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (APO Miami, Fla.) ..... Capt., A.U.S.  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) ..... Major, A.U.S.  
 Muhs, E. O., Muscatine (Camp Claiborne, La.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 647, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Major, A.U.S.

#### O'Brien County

Getty, E. B., Primghar (Shreveport, La.) ..... Capt., A.U.S.  
 Hayne, W. W., Paulina (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Moen, S. T., Hartley (APO 3492, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

#### Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

#### Page County

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Bingham, E. N., Clarinda (APO 923, San Francisco, Cal.) ..... Capt., A.U.S.  
 Bunch, H. Mck., Shenandoah (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 †Burdick, F. D., Shenandoah (APO, New York, N. Y.) ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (APO 4713, San Francisco, Cal.) ..... Major, A.U.S.  
 Little, E. B., Shenandoah ..... 1st Lt., A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) 1st Lt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

#### Palo Alto County

Davey, W. P., Emmetsburg (San Diego, Cal.) Lt. (jg), U.S.N.R.

#### Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... 1st Lt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

#### Pocahontas County

Blair, F. L., Jr., Fonda ..... 1st Lt., A.U.S.  
 Herrick, T. G., Gilmore City (Los Angeles, Cal.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 7233, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.

#### Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Capt., A.U.S.  
 Bates, M. T., Des Moines (Fleet PO, New York, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Riverside, Cal.) ..... Capt., A.U.S.  
 Brown, A. W., Des Moines (Camp Carson, Colo.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (Fort Bliss, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 †Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef.-Offizierlager XXI B, Deutschland [Allemagne]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Vulcan, Alberta, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (Concordia, Kan.) ..... 1st Lt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (Randolph Field, Texas) ..... 1st Lt., A.U.S.  
 Connell, J. R., Des Moines (APO New York, N. Y.) Capt., A.U.S.

Corn, H. H., Des Moines (St. Louis, Mo.).....Capt., A.U.S.  
 Coughlan, D. W., Des Moines (Camp Swift, Tex.).....Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.).....Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.).....1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.).....Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.).....Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Fort Snelling, Minn.).....1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 628, New York, N. Y.).....Major, A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas).....Capt., A.U.S.  
 Ellis, H. G., Des Moines (Kearney, Nebr.).....Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas).....Major, A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Fracasse, John, Des Moines.....1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Gerschek, E. W., Des Moines  
 Gibson, D. N., Des Moines (APO 9128, San Francisco, Cal.).....Major, A.U.S.  
 Glomset, D. A., Des Moines (New Orleans, La.).....1st Lt., A.U.S.  
 Goldberg, Louie, Des Moines (Greensboro, N. C.).....Capt., A.U.S.  
 Gordon, A. M., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 758, New York, N. Y.).....1st Lt., A.U.S.  
 Gurau, H. H., Des Moines (Santa Ana, Cal.).....1st Lt., A.U.S.  
 Haines, D. J., Des Moines (APO 913, San Francisco, Cal.).....Capt., A.U.S.  
 Harris, D. D., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.).....1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 James, A. D., Des Moines (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.).....Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Mines Field, Cal.).....Capt., A.U.S.  
 Kelly, E. J., Des Moines (Marshall, Mo.).....Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.).....Lt. Col., A.U.S.  
 Klockslem, H. L., Des Moines.....Lt. (jg), U.S.N.R.  
 Kotke, E. E., Des Moines (Temple, Texas).....Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.).....1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Lederman, James, Des Moines.....1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.).....Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (Jackson, Miss.).....1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.).....1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Chicago, Ill.).....Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.).....1st Lt., A.U.S.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa).....Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (March Field, Cal.).....Capt., A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.).....Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines.....1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.).....Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....Capt., A.U.S.  
 Morden, R. P., Des Moines (APO 4570, New York, N. Y.).....Capt., A.U.S.  
 Murphy, J. H., Des Moines (Barstowe, Cal.).....Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.).....Capt., A.U.S.  
 Noun, L. J., Des Moines (Fleet PO, New York, N. Y.).....Lt. (jg), U.S.N.R.  
 Noun, M. H., Des Moines (APO 514, New York, N. Y.).....Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.).....1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.).....Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 9301, New York, N. Y.).....Capt., A.U.S.  
 Penn, E. C., West Des Moines (Jefferson Barracks, Mo.).....Capt., A.U.S.  
 Pfeiffer, E. P., Des Moines (Springfield, Mo.).....Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corpus Christi, Texas).....Lt., U.S.N.R.  
 Porter, R. J., Des Moines (Sioux City, Iowa).....Capt., A.U.S.  
 Powell, L. D., Des Moines (Long Beach, Cal.).....Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Priestley, J. B., Des Moines (Camp Phillips, Kan.).....Major, A.U.S.  
 Purdy, W. O., Des Moines (Camp Howze, Texas).....Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.).....Major, A.U.S.  
 Robinson, V. C., Des Moines (Tampa, Fla.).....Capt., A.U.S.  
 Rotkow, M. J., Des Moines (Louisville, Ky.).....Capt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Shepherd, L. K., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Shifler, H. K., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.).....1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (Brownsville, Texas).....1st Lt., U.S.P.H.S.  
 Smead, H. H., Des Moines (Dover, Del.).....Capt., A.U.S.  
 Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Smith, R. T., Des Moines (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Snodgrass, R. W., Des Moines (Fort Rosecrans, Cal.).....Capt., A.U.S.  
 Snyder, G. E., Grimes (APO 9022, San Francisco, Cal.).....Major, A.U.S.  
 Sohm, H. A., Des Moines (Oceanside, Cal.).....Lt. Comdr., U.S.N.R.  
 Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.  
 Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.  
 Stickler, Robert, Des Moines (Fort Benning, Ga.).....Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (Camp Berkeley, Texas).....Capt., A.U.S.  
 Toubes, A. A., Des Moines (APO 12453, New York, N. Y.).....Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas).....Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.).....1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (Transfer, Penn.).....1st Lt., A.U.S.  
 Vaubel, E. K., Des Moines (Silver Spring, Md.).....Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.).....1st Lt., A.U.S.  
 Willett, W. M., Des Moines (Camp Rucker, Ala.).....Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Zarchy, A. C., Des Moines (Camp Cook, Cal.).....Capt., A.U.S.

#### Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.  
 Cogley, J. P., Council Bluffs (APO 503, San Francisco, Cal.).....Major, A.U.S.  
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Olathe, Kan.).....Lt. Comdr., U.S.N.R.  
 Floersch, E. B., Council Bluffs (Bremerton, Wash.).....Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Chicago, Ill.).....Lt., U.S.N.R.  
 Jensen, A. L., Council Bluffs (APO 952, San Francisco, Cal.).....Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.  
 Limbert, E. M., Council Bluffs (Atlanta, Ga.).....Capt., A.U.S.  
 Maiden, S. D., Council Bluffs (Longview, Tex.).....Major, A.U.S.  
 Martin, L. R., Council Bluffs (APO 923, San Francisco, Cal.).....Capt., A.U.S.  
 Moskovitz, J. M., Council Bluffs (Camp Lockett, Cal.).....Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (APO 938, Seattle, Wash.).....Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 34, New York, N. Y.).....Capt., A.U.S.  
 Treynor, J. V., Council Bluffs (Rochester, Minn.).....Lt. Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.  
 Wurl, O. A., Council Bluffs (APO 871, New York, N. Y.).....Capt., A.U.S.

#### Poweshiek County

Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.).....Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.).....1st Lt., A.U.S.  
 Korfmacher, E. S., Grinnell (San Francisco, Cal.).....Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco, Cal.).....Capt., A.U.S.  
 Parish, J. R., Grinnell (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.

#### Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Capt., A.U.S.

#### Sac County

Bassett, G. H., Sac City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 1001, New York, N. Y.).....Capt., A.U.S.  
 Evans, W. I., Sac City (APO 9212, New York, N. Y.).....Capt., A.U.S.  
 Klockslem, R. G., Odebolt (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Neu, H. N., Sac City (APO 4936, San Francisco, Cal.).....Major, A.U.S.

#### Scott County

Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.  
 Balzer, W. J., Davenport (APO 939, Seattle, Wash.).....Capt., A.U.S.  
 Bishop, J. F., Davenport (APO 729, Seattle, Wash.).....Capt., A.U.S.  
 Block, L. A., Davenport (APO 534, New York, N. Y.).....Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York, N. Y.).....Capt., A.U.S.  
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.



Brown, D. H., Davenport (Waycross, Ga.).....Capt., A.U.S.  
 Brown, M. J., Davenport (Camp Hale, Colo.)...Major, A.U.S.  
 Carey, E. T., Davenport (Fort Andrews, Mass.)...1st Lt., A.U.S.  
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.).....Capt., A.U.S.  
 Coleman, Tom, Davenport (Camp Stewart, Ga.)...1st Lt., A.U.S.  
 Cummins, G. M., Jr., Davenport.....1st Lt., A.U.S.  
 Decker, C. E., Davenport (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Evans, H. J., Davenport (St. Petersburg, Fla.)....Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.)....Capt., A.U.S.  
 Goenne, Wm., Jr., Davenport (Camp White, Ore.)...1st Lt., A.U.S.  
 Hurevitz, H. M., Davenport (APO 3658, New York, N. Y.).....Capt., A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.).....1st Lt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Barkeley, Texas).....Major, A.U.S.  
 Kimberly, L. W., Davenport (New Orleans, La.)...Capt., A.U.S.  
 Krakauer, Max, Davenport (Camp Campbell, Ky.)...1st Lt., A.U.S.  
 LaDase, L. H., Davenport (APO 180, Los Angeles, Cal.).....Major, A.U.S.  
 Lorfeld, G. W., Davenport (Columbus, Ohio).....Capt., A.U.S.  
 Marker, J. L., Davenport (Camp Carson, Colo.)...Col., A.U.S.  
 McMeans, T. W., Davenport (APO 514, New York, N. Y.).....1st Lt., A.U.S.  
 Neufeld, R. J., Davenport (Camp Ellis, Ill.).....Capt., A.U.S.  
 Perkins, R. M., Davenport (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Sheeler, I. H., Davenport (Carlisle Barracks, Pa.)...Capt., A.U.S.  
 Shorey, J. R., Davenport (Carlisle Barracks, Pa.)...Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 514, New York, N. Y.).....1st Lt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.)...Lt. Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (Paris, Texas)....Capt., A.U.S.  
 Weinberg, H. B., Davenport (Fort Benning, Ga.)...Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.).....Capt., A.U.S.

#### Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Griffith, W. O., Shelby (Camp Davis, N. C.).....A.U.S.  
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

#### Sioux County

Gleysteen, R. R., Alton (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (Fort Sam Houston, Texas).....1st Lt., A.U.S.  
 Larson, M. O., Hawarden (Camp Bowie, Texas)....Major, A.U.S.  
 Oelrich, A. M., Hull (Biloxi, Miss.).....1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Biloxi, Miss.).....1st Lt., A.U.S.

#### Story County

Connor, J. D., Nevada (APO 708, San Francisco, Cal.).....Capt., A.U.S.  
 Fellows, J. G., Ames (Ft. Leonard Wood, Mo.)....Capt., A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.)....Lt., U.S.N.R.  
 McFarland, J. E., Ames (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (Del Valle, Texas)....Capt., A.U.S.  
 Sperow, W. B., Nevada (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamogordo, N. Mex.)...Major, A.U.S.

#### Tama County

Bezman, H. S., Traer (Camp Hood, Tex.).....1st Lt., A.U.S.  
 Boller, G. C., Traer (Camp Bowie, Texas).....Capt., A.U.S.  
 Dobias, S. G., Chelsea (APO 937, Seattle, Washington)  
 Havlik, A. J., Tama (San Diego, Cal.).....Lt., U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.)  
 Standefer, J. M., Tama (Port Hueneme, Cal.).....Lt., U.S.N.R.

#### Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.).....1st Lt., A.U.S.

#### Union County

Beatty, H. G., Creston (Camp Barkeley, Tex.)...1st Lt., A.U.S.  
 Paragas, M. R., Creston (Camp Beale, Cal.).....Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.).....Capt., A.U.S.

#### Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.).....1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO New York, N. Y.)...Major, A.U.S.  
 Giffillan, C. D. N., Eldon (Battle Creek, Mich.)...Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.)...Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (Carlisle Barracks, Pa.)...1st Lt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa.....Capt., A.U.S.  
 Prewitt, L. H., Ottumwa (March Field, Cal.)....Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas).....Lt. Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.)...Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego, Cal.).....Lt. Comdr., U.S.N.R.

#### Warren County

Fullgrabe, E. A., Indianola (San Diego, Cal.)....Lt., U.S.N.R.  
 Hoffman, G. R., Lacona (Camp San Luis Obispo, Cal.).....Capt., A.U.S.  
 Shaw, E. E., Indianola (APO 834, New Orleans, La.).....Capt., A.U.S.  
 Trueblood, C. A., Indianola (APO 730, Seattle, Wash.).....Capt., A.U.S.

#### Washington County

Boice, C. L., Washington (Atlantic City, N. J.)....Lt., U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Mast, T. M., Washington (Portland, Ore.).....Lt. U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.)...1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Ware, S. C., Kalona (Camp McCoy, Wis.).....Capt., A.U.S.

#### Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.).....Capt., A.U.S.

#### Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.)...Capt., A.U.S.  
 Burch, E. S., Dayton (APO 4754, San Francisco, Cal.).....Capt., A.U.S.  
 Burleson, M. W., Fort Dodge (Monterey, Cal.)...1st Lt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa).....Major, A.U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.)...Lt. Comdr., U.S.N.R.  
 Joynor, N. M., Fort Dodge (Brooklyn Field, Ala.)  
 Kluever, H. C., Fort Dodge (Farragut, Idaho) Lt. Comdr., U.S.N.R.  
 Larsen, H. T., Fort Dodge (Pensacola, Fla.)....Lt., U.S.N.R.  
 Shrader, J. C., Fort Dodge (APO 181, Los Angeles, Cal.).....Major, A.U.S.  
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.).....Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.).....Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.)...1st Lt., A.U.S.

#### Winneshiek County

Fritchen, A. F., Decorah (APO San Francisco, Cal.).....Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 688, New York, N. Y.).....Major, A.U.S.  
 Howard, W. H., Decorah  
 Larson, L. E., Decorah (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Calif.)...Lt. (jg) U.S.N.R.  
 Van Besien, G. J., Decorah (APO New York, N. Y.).....1st Lt., A.U.S.

#### Woodbury County

Bettler, P. L., Sioux City (APO San Francisco, Cal.).....Major, A.U.S.  
 Blackstone, M. A., Sioux City (Pittsburg, Cal.)...1st Lt., A.U.S.  
 Boe, Henry, Sioux City (Salina, Kan.).....Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Cmeyle, P. M., Sioux City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.).....Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa)....1st Lt., A.U.S.  
 Down, H. I., Sioux City (Camp Breckenridge, Ky.) Major, A.U.S.  
 Elson, V. J., Danbury (Camp Walters, Tex.)....Capt., A.U.S.  
 Frank, L. J., Sioux City (Mare Island, Cal.)...Lt. Comdr., U.S.N.R.  
 Graham, J. W., Sioux City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.).....Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Salt Lake City, Utah).....1st Lt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.)....Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.)...Capt., A.U.S.  
 Kaplan, David, Sioux City (APO 759, New York, N. Y.).....Capt., A.U.S.  
 Knott, R. C., Sioux City (Atlanta, Ga.).....Capt., A.U.S.  
 Kristgen, W. M., Sioux City (Springfield, Mo.)...Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (Santa Fe, N. Mex.)....Major, A.U.S.  
 Martin, R. F., Sioux City (Gallatin, Tenn.)....1st Lt., A.U.S.  
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.).....1st Lt., A.U.S.  
 McCuiston, H. M., Sioux City (APO New York, N. Y.).....Capt., A.U.S.  
 Mugan, R. C., Sioux City (Gowen Field, Idaho) 1st Lt., A.U.S.  
 Osincup, P. W., Sioux City (APO 9101, New York, N. Y.).....Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.)...Capt., A.U.S.  
 Reeder, J. E., Jr., Sioux City (Modesto, Cal.)...Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.).....Capt., A.U.S.  
 Schwartz, J. W., Sioux City (Ft. Leavenworth, Kan.).....Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Ephrata, Wash.).....Capt., A.U.S.

#### Worth County

Westly, G. S., Manly (APO 4580, San Francisco, Cal.).....Major, A.U.S.

#### Wright County

Aagesen, C. A., Dows (Greenville, Pa.).....Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.).....Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Phoenix, Ariz.)  
 Gorrell, R. L., Clarion (Buffalo, N. Y.).....Lt., U.S.N.R.  
 Leinbach, S. P., Belmond (Farragut Air Base, Idaho)  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.).....Capt., A.U.S.

(\*) Reported missing in action

(†) Reported killed in action.

(‡) Reported prisoner of war.

# WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

*President*—MRS. W. S. REILEY, Red Oak

*President-Elect*—MRS. J. C. DECKER, Sioux City

*Secretary*—MRS. A. G. FELTER, Van Meter

*Treasurer*—MRS. A. E. MERKEL, Des Moines

## MORE THOUGHTS ON THE WAGNER BILL

"The Wagner-Murray-Dingell Bill (known as Bill 1161) is vicious in its socialization of medicine. Each Auxiliary member should be fully informed on this Bill before she endeavors to explain or refute it to her neighbor or the laity. The purpose is lost if she attempts to defeat the Bill without definite knowledge and support for her arguments."—Mrs. Eben J. Carey, President of the Woman's Auxiliary to the American Medical Association, in the December, 1943, issue of *The Bulletin*.

"The private practice of a previous generation has given way gradually to a variety of technics for providing medical care. Some 15,000,000's of people are covered by hospitalization insurance. The plans administered by large industries, those operated by insurance companies, community plans, those operated by farm groups and by governmental agencies protect many millions of people against the hazards of catastrophic illness.

"Many of these plans evolved from wholly different procedures. Most of the plans are still undergoing active evolution. There is much misunderstanding of the relationship of the American Medical Association to these proposals. The principle of insurance against the hazards and costs of sickness has been accepted, but the administration of such insurance by the federal government is opposed. The menace of political control of medical services, of interposition of the politician between doctor and patient, is easily realized.

"Notwithstanding much that has been said to the contrary, there has never been opposition to the practice of medicine by doctors organized in groups, whether paid by salaries, or fees, or percentages of a partnership, or as teachers in educational institutions. There has been, however, opposition to methods of exploitation used by such groups, including newspaper advertising to secure patients, employment of agents to solicit patients, or contracts with underbidding to take over the complete medical service of an industry, when it became clear that medical care would be skimmed in quality to meet a price . . .

"No doubt, new proposals and new technic in medical service will continue to develop by evolution. There is nothing of progress in the so-called Wagner-Murray-Dingell Bill. That is merely an attempt to engraft on the American people the system

of government controlled compulsory sickness insurance that prevails in Germany; with the exception, however, that the dictatorship of government proposed here is even more absolute. There is no reason why American ingenuity and American leadership should need to borrow from either Bismarck or Beveridge. The principles of our democracy will be best maintained by a medical service adapted to American conditions of living."—From an editorial, "Postwar Planning for Medical Services," by Morris Fishbein, M.D., in the December, 1943, issue of *Hygeia*.

## THE UNITED STATES CADET NURSE CORPS PROGRAM

"In what way can the Woman's Auxiliary be of service to the United States Cadet Nurse Corps? There are at least four ways in which you, both as individuals and as members of an organization, can be of great help:

1. By recruiting additional student nurses.
2. By helping interested girls choose the right school.
3. By holding, and strengthening, the interest of candidates for the Corps between the time they seek information and the time they are admitted.
4. By assisting local nursing councils and local hospitals in staffing hospital Information Centers for the Corps.

"... Make sure that a poster and material on the United States Cadet Nurse Corps are in your husband's office. You can, in addition, see that posters and publicity material are placed in prominent location in your community.

"... If you need further information, the National Nursing Council for War Service, 1790 Broadway, New York, New York, will be glad to help you. Also available is a new pamphlet, 'How to Choose a School of Nursing,' recently issued by the Division of Nurse Education."—Lucille Petry, R.N., Director Division of Nurse Education, United States Public Health Service, in the December, 1943, issue of *The Bulletin*.

## REPORT OF THE BOARD OF DIRECTORS MEETING OF THE NATIONAL AUXILIARY

The midyear meeting of the Board of Directors of the Woman's Auxiliary to the American Medical Association convened at 9:30 a. m. November 19 at



the Palmer House in Chicago. After roll call the minutes of the convention in June were read and the report of the Treasurer was given. Reports and recommendations of officers and directors were presented, after which a nominating committee was elected. This was followed by reports of the chairmen of the standing and special committees.

It was at this time that Mrs. Luther Kice, Chairman of Legislation, gave a forceful talk on the Wagner-Murray Bill. If one did not recognize before the dangerous results of such a bill, there could be no doubt in one's mind after hearing her stress the need for all Auxiliaries to exert every effort in killing the bill. These reports were followed by messages from each of the sixteen presidents present.

The date of the annual convention was announced. It is to be held in Chicago at the Knickerbocker Hotel June 12 to 15, 1944.

At the noon luncheon interesting and instructive talks were given by the guest speakers: Dr. Kretschmer, president-elect of the American Medical Association; Dr. Fenton, member of the Advisory Council; Dr. Braasch, member of the Advisory Committee; Commander Lapham, Executive Director of Procurement and Assignment; and Miss Jean Henderson, Chief of the Public Relations Division of Nurse Education, U. S. Public Health Service. The various speakers stressed the importance of defeating the Wagner-Murray Bill, the registering of all graduate nurses in a nationwide drive at a date to be announced later, and urged the cooperation of all Auxiliaries in stimulating interest in the Cadet Nurse Corps and emphasized the importance of a larger *Hygeia* circulation.

I echo the sentiments of these speakers, and am asking that all members of the Auxiliary become informed on the various points of the Wagner-Murray Bill so that in fighting this measure we can explain to the laity in an instructive manner the real menace of socializing medicine in a democratic country such as ours. Surely if the members are not currently informed on all phases of the bill we can expect no help from the laymen. With the few doctors not in service working overtime, we cannot leave the forcing of the issue to them. Although they should be and are concerned with the outcome, we cannot let them assume the whole weight of the fight. Certainly when they have a chance for recreation their minds should be free of all pressing matters. It goes without saying that whatever concerns our husbands also concerns us, and obviously the passage of this bill would weaken the structure on which men have been working for years. We do not want our husbands to return from the war only to see that for which they have been fighting gone—Freedom.

Again, as in my President's message, I want to emphasize the importance of the Cadet Nurse Corps. Recent figures reveal that the enrollment is exceedingly low. Could it be that the girls eligible for the Corps are not fully informed and acquainted with the facts pertaining to the Corps? Are you? I sincerely hope so. If we do not have full knowledge of the requirements and are not able to talk freely on the

subject, it naturally reflects on the Auxiliary as well as on the Medical Society, because aren't these professions bound together for the same purpose—the healing of human bodies?

Our President, Mrs. Carey, gave a full and interesting account of the Auxiliary's activities to date. She was especially concerned because of the small circulation of *Hygeia*. *Hygeia* is definitely united with the war effort and each issue has timely articles pertinent to the current war efforts. She expressed her thanks to the various Auxiliaries for their work and loyalty and for all their timely suggestions and considerations, and wished each Auxiliary a prosperous and full new year.

I want to reiterate my gratitude to the Auxiliary for making it possible for me to attend this meeting, and I regret that I cannot find adequate words to show my appreciation.

Mrs. W. S. Reiley, President

#### WHERE SHOULD WE FIND HYGEIA?

1. In the home of every Auxiliary member.
2. In the homes of our friends as gifts from Auxiliary members.
3. In the hands of every instructor of Home Nursing.
4. In every USO center and military camp recreation center.
5. In every base hospital library.
6. In every community reading room, hospital, college, high school and institutional library and every doctor's and dentist's reception room.

#### Adair County

The Auxiliary to the Adair County Medical Society met with the doctors for dinner at the hotel in Greenfield Tuesday evening, December 14, 1943, with ten guests present. Everyone was urged to boost subscriptions to *Hygeia*.

Mrs. A. S. Bowers, President  
Mrs. Eugene Tineman, Treasurer

#### GREAT EXPECTATIONS

"No matter how bad your days may be, you dare not give up because great things are expected of you. Your Creator has endowed you with amazing possibilities, your community has surrounded you with great opportunities, your world is coming to you with great needs. Jesus has made you great promises on God's behalf; you, yourself in your best moments, dreamed of great achievements. The dire days through which we live call for the utmost any of us can give. The ages that have gone bequeathed to us treasures which must not be wasted. Loyal friends have made a great investment of faith in you. Someone waits to take the torch from your hands. 'Watch, therefore, that ye enter not into temptation.'"—R.L.S. in *The Christian Advocate*, January 6, 1944.

## SOCIETY PROCEEDINGS

### Black Hawk County

The regular monthly meeting of the Black Hawk County Medical Society was held at Black's Tea Room in Waterloo Tuesday evening, January 18, at 6:30 p. m. The scientific program comprised a symposium on Carcinoma of the Breast conducted by Arthur E. Perley, M.D., John L. Kestel, M.D., and Wade O. Preece, M.D., all of Waterloo.

S. A. Barrett, M.D., Secretary

### Cherokee County

Dr. Charles W. Ihle of Cleghorn was elected president of the Cherokee County Medical Society at its meeting Tuesday evening, January 11, in Cherokee at the Sioux Valley Hospital. Other officers who will serve the Society during 1944 are Dr. Lester J. Spinharney of Cherokee, vice president; Dr. Donald C. Koser of Cherokee, secretary and treasurer; and Dr. Charles F. Obermann of Cherokee, delegate.

### Dallas-Guthrie Society

Members of the Dallas-Guthrie Medical Society met Thursday noon, January 20, at the Rotary Club Room in Adel. Members of the Woman's Auxiliary were also present for luncheon, following which the scientific program for the doctors consisted of a paper regarding Early Diagnosis of Tuberculosis by Howard W. Smith, M.D., of Woodward, and a discussion of Acute Hemorrhagic Nephritis by Allan G. Felter, M.D., of Van Meter.

S. J. Brown, M.D., Secretary

### Emmet County

Officers elected to serve the Emmet County Medical Society during 1944 include Dr. Cleanthus E. Birney, president; Dr. Smith C. Kirkegaard, vice president; Dr. Luther W. Loving, secretary and treasurer; Dr. Matthew T. Morton, delegate; Dr. George B. Johnston, alternate; and Dr. Andrew I. Reed, censor. All officers are of Estherville.

### Hardin County

The Hardin County Medical Society held its annual meeting in Eldora at the Schwarck Tea Room Monday evening, January 3. Following dinner the annual business meeting was held and the following officers elected to serve the Society during 1944: Dr. George A. Blaha of Whitten, president; Dr. David M. Nyquist of Eldora, vice president; Dr. William E. Marsh of Eldora, secretary; Mr. Eastman W. Nuckolls, treasurer; Dr. Clarence M. Wray of Iowa Falls, delegate; and Dr. Fern N. Cole of Iowa Falls, alternate.

### Johnson County

The regular monthly meeting of the Johnson County Medical Society was held in Iowa City at Hotel Jefferson on Wednesday evening, January 5. The usual business meeting was followed by the scientific program which consisted of an interesting movie on The Experimental Changes in Behavior of the Cat Associated with Different Types of Brain Lesions. This was demonstrated by Dr. W. R. Ingram, Professor and Head of Anatomy, and Doctor M. D. Wheatley, Research Assistant in Anatomy.

R. H. Flocks, M.D., Secretary

### Kossuth County

The Kossuth County Medical Society held a dinner in Algona Monday evening, December 20, in honor of Dr. Ray L. Corbin of Luverne, who was leaving soon to take up his work on the medical staff of the Veterans Administration in Des Moines.

### Polk County

The annual meeting of the Polk County Medical Society was held in Des Moines at Wakonda Club Wednesday, January 19, at 6:00 p. m. Prior to dinner a brief discussion of the Wagner-Murray-Dingell Bill was presented by Mr. Henry L. Adams, legal adviser to the Iowa State Medical Society, and Ransom D. Bernard, M.D., chairman of the Committee on Medical Service and Public Relations of the Iowa State Medical Society. Following dinner an address on The Physician and Tuberculosis Control was presented by Jay Arthur Myers, M.D., Professor of Internal Medicine, Preventive Medicine and Public Health at the University of Minnesota Medical School.

Officers elected to serve the Society during 1944 include: Dr. Arthur E. Merkel, president-elect; Dr. Edward W. Anderson, secretary and treasurer; Dr. John C. Parsons, trustee; and Dr. Fred Sternagel, councilor-at-large. Dr. Christian B. Luginbuhl was inducted as president, having been named president-elect last year. All officers are of Des Moines with the exception of Dr. Sternagel, who is located in West Des Moines.

### Scott County

The regular monthly meeting of the Scott County Medical Society was held at the Lend-A-Hand Club in Davenport Tuesday, January 4, at 6:00 p. m. The guest speaker of the evening was Major Joseph E. Milgram, M.C., head of the Division of Orthopedic Surgery at Schick General Hospital, who spoke on Experiences in Traumatic Surgery.

Leo J. Miltner, M.D., Secretary



### Woodbury County

The Woodbury County Medical Society held a meeting in Sioux City at the Martin Hotel Wednesday, January 19, at 6:30 p. m. Major Wayland K. Hicks, M.C., former Sioux City physician who is now stationed at Baxter General Hospital in Spokane, Washington, spoke before the group on Penicillin and Chemotherapy.

At the annual meeting of the Society held earlier in the month the following officers were elected for 1944: Dr. Charles A. Katherman, president-elect; Dr. John D. Lutton, vice president; and Dr. Frank D. McCarthy, secretary and treasurer. Dr. Robert N. Larimer was installed as president, having been named president-elect at the meeting last year. All officers are of Sioux City.

F. D. McCarthy, M.D., Secretary

### PERSONAL MENTION

Dr. William N. Doss, who recently received a medical discharge from the Army after serving for two years as a captain in the Southwest Pacific area, has resumed the practice of medicine in Leon where he was located prior to entering military service.

The American College of Surgeons has informed the JOURNAL that the following initiates from Iowa were accepted in the College in 1943: Dr. Benjamin G. Broghammer of Cedar Rapids; Dr. Elliott C. Cobb of Sioux City; Dr. Charles H. Coughlan of Fort Dodge; Drs. Edwin A. Crowell, Jr., Ralph A. Dorner, Karl S. Harris, and John L. Marxer, all of Iowa City; Dr. George J. Pearson of Burlington; and Dr. Arthur G. Plankers of Dubuque.

Dr. John M. Pope, who has been located in Cherokee for the past several years, has moved to Camarillo, California, where he has accepted a position on the staff of the Camarillo State Hospital.

Dr. John A. Thorson of Dubuque spoke before the members of the Dubuque Lions Club at their meeting Wednesday noon, December 29. The subject of Dr. Thorson's address was Government Control of Medical Practice.

Dr. Faye Lewis of Webster City has re-entered the active practice of medicine in that city. Dr. Lewis, whose husband, Dr. William B. Lewis, is serving with an army medical corps in Italy, has resumed practice to relieve the emergency caused by a shortage of physicians.

Dr. Thomas Murphy has become associated in the practice of medicine and surgery in Osceola with Dr. Conreid R. Harken. Recently Dr. Murphy has been practicing in Cedar Rapids.

Dr. Frank G. Ober of Burlington spoke before the Kiwanis Club of that city at its meeting Thursday noon, January 13. Dr. Ober discussed the Wagner-

Murray Bill and its effect on the present system of medical treatment.

Dr. William A. Johnson, who has been located in Fort Dodge for the past year as an assistant to Dr. Edward F. Beeh, has moved to Detroit, Michigan, where he has become associated with Harper Hospital.

### MARRIAGES

Mrs. Rosamond Skyhawk of Rochester, Minnesota, and Dr. Charles H. Cronk of Bloomfield were united in marriage Christmas morning in Lancaster, Missouri. The couple will reside in Bloomfield where Dr. Cronk has been engaged in the practice of medicine for many years.

Miss Hilda Bergeson and Dr. John H. Sherlock of Rock Rapids were united in marriage New Year's Day at the home of the bride's sister in Morton, Minnesota. The couple will reside in Rock Rapids where Dr. Sherlock has been engaged in the practice of medicine for the past few months, having moved there from Larchwood following the death of Dr. L. L. Corcoran last spring.

### DEATH NOTICES

Hinchliff, James, of Minburn, aged sixty-five, died January 10 following an illness of several months. He was graduated in 1905 from the Keokuk Medical College, College of Physicians and Surgeons, and at the time of his death had long been a member of the Dallas-Guthrie and Iowa State Medical Societies.

Jessup, Arthur Ernest, of Diagonal, aged seventy-four, died January 12. He had been in ill health during the past year. He was graduated in 1895 from the State University of Iowa College of Medicine, and at the time of his death had long been a member of the Ringgold County and Iowa State Medical Societies.

Kennedy, Charles Stephen, of Logan, aged seventy-five, died January 13. He was graduated in 1902 from Creighton University School of Medicine, and at the time of his death was a member of the Harrison County and Iowa State Medical Societies.

Pfannebecker, William, of Sigourney, aged eighty, died January 8 of pneumonia and uremic poisoning following an operation. He was graduated in 1891 from Missouri Medical College in St. Louis, and at the time of his death was a life member of the Keokuk County and Iowa State Medical Societies.

Secoy, Frank L., of Sioux City, aged fifty-six, died January 23 of injuries received in an automobile accident. He was graduated in 1911 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Woodbury County and Iowa State Medical Societies.

# HISTORY OF MEDICINE IN IOWA

*Edited by the Historical Committee*

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary*

DR. JOHN T. MCCLINTOCK, Iowa City

DR. MURDOCH BANNISTER, Ottumwa

DR. FRANK E. SAMPSON, Creston

## Medical History of Woodbury County

WILLIAM JEPSON, M.D., Sioux City

### PART IV

(Conclusion)

The duty of the Public Health Engineer is to serve as a consultant in all problems involving water supply and sanitation. All municipal water plants in the district are inspected frequently; conferences are held with operating personnel, and specimens of water are collected for laboratory analysis. Swimming pools are checked during the season of use for proper operation and the purity of the water. Other problems, such as sewage disposal, school sanitation, and industrial hygiene, come to the Public Health Engineer for solution.

During the past two years special effort has been exerted upon venereal disease control. Departmental clinics are held daily. Two workers, specially trained in personal interviewing, spend their entire time in finding contacts of known cases, in convincing these contacts to be examined, and in getting those who have lapsed in treatment to return to complete the cure. The laboratory also cooperates in establishing the diagnosis.

The volume of work in the laboratory has constantly increased. This is especially true because of the necessity for laboratory findings in carrying out the various programs now being stressed. The work can be classified under the following headings: Bacteriology of communicable disease; serology and bacteriology of venereal disease; milk control for Sioux City milk shed; and water supplies for Sioux City and the District.

Since December, 1941, the laboratory has been accredited in serology by the State Hygienic Laboratories under the sanction of the United States Public Health Service and is under constant evaluation.

When Woodbury County became a part of District No. 4, a District Supervising Nurse came to the staff. Her duties are directing, coordinating, and supervising all public health nursing in the

district. Because of this supervision, students in public health nursing from the Public Health Nursing Course at the University of Minnesota are sent to this district for field work.

### THE STAFF

Director of District:	City Physician
Food Inspection:	Milk—4
	Meat—2
	Food Serving—1
Nursing:	District Supervising Nurse
	5 County Nurses in District
Visiting Nurses:	Director
	Assistant Director
	6 Nurses
	2 Quarantine Nurses
	1 Venereal Disease Nurse
School Nurses:	4 Nurses, one serving as
	Director
Quarantine Officer:	One
Venereal Disease	
Investigator:	One
Laboratory:	Director
	2 Assistants
Public Health	
Engineer:	One
Clerical:	One Secretary to Director
	and Statistician
	Three Junior Clerks and
	Stenographers

### ORGANIZATION OF MEDICAL SOCIETY

The first medical organization in the county was the Sioux City Medical Society, which was organized in May, 1872, with meetings to be held quarterly. The following officers were elected.

President: J. C. Hackett, Sioux City

Vice-President: C. E. Clingan, Sioux City



Recording Secretary: B. A. Guyten, Sioux City  
Corresponding Secretary: G. W. Beggs, Sioux City

Treasurer: Charles Rice, Smithland

Censors: G. W. Beggs and J. C. Krejce, Sioux City, and R. C. Rice, Smithland.

There were thirteen members, of whom seven were from Sioux City and six from distant towns, which showed at that time a marked interest in medical matters. The members were:

G. W. Beggs, Sioux City  
C. E. Clingan, Sioux City  
W. W. Ellibrook, Sioux City  
J. C. Hackett, Sioux City  
J. M. Knott, Sioux City  
J. C. Krejce, Sioux City  
B. A. Guyten, Sioux City  
R. L. Cleaves, Cherokee  
F. W. Foster, Le Mars  
F. A. Xanton, Le Mars  
R. C. Rice, Smithland  
Charles Rice, Smithland  
J. J. Saville, Kearney, Nebraska.

At the time of the organization of the society there were only twenty-two doctors in the county, of whom three were homeopaths and two were eclectics.

The Society, at its meeting on September 18, 1903, upon motion adopted the constitution recommended by the National Committee of the American Medical Association and the Society was organized as the Woodbury County Medical Society, with Guy E. Rich as President and Frank J. Murphy, Secretary.

The Society has continued its activities ever since, with monthly meetings. When the hour of meeting was changed to a dinner at 6:30, followed by the program, there developed a greater fraternizing of the profession and an increased attendance. The earlier programs were largely supplied by the membership and were often thoroughly, if not heatedly, discussed. This seemingly possessed one advantage in that it forced the one preparing the paper to familiarize himself with the topic, as well as to introduce his own views. Members discussing the topic would, of course, disclose their views with the consequence that the members acquired a fair degree of knowledge of the views and attainment of the membership of the Society.

The Society has shown a tendency in late years of having its programs supplied by distant members of the profession. This has resulted in a high order of programs; but, of course, there is little discussion, probably largely out of respect and courtesy to the guest speaker.

The Woodbury County Medical Society, on April 15, 1932, organized itself to provide the medical and surgical needs of the indigent of this County. To this end, it entered into a contract with the Board of Supervisors to supply those needs of County charges. This contract has been renewed annually since that time, with, it is believed, satisfaction to all concerned. The Society maintains a Clinic in the downtown district, open between the hours of 9:00 a. m. and 4:00 p. m., to which patients are admitted by card from the Family Welfare Bureau, supervised by the Overseer of the Poor.

The members of the Society rotate in servicing the Clinic. The city is divided into districts for the care of house calls and similar rotation in service is employed.

THE END.

#### CONTINUATION COURSE IN OTOLARYNGOLOGY

The University of Minnesota Center for Continuation Study has announced a continuation course in otolaryngology. It will be given February 7 to 11, 1944. Registration is limited to fifty physicians. Because the rooms of the Center for Continuation Study are occupied by military units, the course will be given in one of the leading downtown hotels in Minneapolis and at the University of Minnesota Hospitals. Early registration is desirable in order that advanced hotel reservations may be made. Tuition is \$25.00, payable \$3.00 in advance and the balance on the first morning of the course, with the exception of physicians on duty with the military forces who will be admitted without payment of tuition or registration fee. Further information may be obtained at the Center for Continuation Study, University of Minnesota, Minneapolis 14, Minnesota.

#### AWARD OFFERED BY AMERICAN UROLOGICAL ASSOCIATION

The American Urological Association offers an annual award "not to exceed \$500" for an essay (or essays) on the result of some specific clinical or laboratory research in urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deems none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years. All interested should write the Secretary, for full particulars.

The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, June 19 to June 22, 1944, Hotel Jefferson, St. Louis, Missouri.

Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before March 15, 1944.

# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**URINE AND URINALYSIS**—By Louis Gershenfeld, Ph.D., professor of bacteriology and hygiene and director of the Bacteriological and Clinical Chemistry Laboratories at the Philadelphia College of Pharmacy and Science. Second edition, thoroughly revised. Lea & Febiger, Philadelphia, 1943. Price, \$3.25.

**FRACTURES AND DISLOCATIONS for Practitioners**—By Edwin O. Geckeler, M.D., fellow of the American College of Surgeons, fellow of the American Academy of Orthopaedic Surgeons, diplomate of the American Board of Orthopaedic Surgery. Third edition. The Williams and Wilkins Company, Baltimore, 1943. Price, \$4.50.

**INTERNAL MEDICINE IN GENERAL PRACTICE**—By Robert Pratt McCombs, Lieutenant, Medical Corps, United States Naval Reserve; recently instructor in internal medicine for the Statewide Postgraduate Program of the Tennessee State Medical Association. On leave of absence from the staffs of the Pennsylvania Hospital, the Abington Memorial Hospital, and the Jefferson Medical College, Philadelphia. W. B. Saunders Company, Philadelphia, 1943. Price, \$7.00.

**BACKACHE AND SCIATIC NEURITIS**—By Philip Lewin, M.D., associate professor of bone and joint surgery, Northwestern University Medical School; attending orthopaedic surgeon, Cook County Hospital; attending orthopaedic surgeon, Michael Reese Hospital; professor of orthopaedic surgery, Cook County Graduate School of Medicine, Chicago; Lieutenant Colonel, Medical Corps, U. S. Army. Lea & Febiger, Philadelphia, 1943. Price, \$10.00.

**RECONSTRUCTIVE SURGERY OF THE EYELIDS**—By Wendell L. Hughes, M.D., Hempstead, New York. The C. V. Mosby Company, St. Louis, 1943. Price, \$4.00.

**OUT OF THE TEST TUBE**—By Harry N. Holmes, Ph.D., professor of chemistry at Oberlin College; 1942 president of the American Chemical Society. Fourth edition, revised and expanded. Emerson Books, Inc., New York, 1943. Price, \$3.00.

**THE ANATOMY OF THE NERVOUS SYSTEM**—By Stephen Walter Ranson, M.D., Ph.D., formerly professor of neurology and director of Neurological Institute, Northwestern University Medical School, Chicago. Seventh edition, revised. W. B. Saunders Company, Philadelphia, 1943. Price, \$6.50.

**THE 1943 YEAR BOOK OF GENERAL MEDICINE**—Edited by George F. Dick, M.D.; J. Burns Amberson, Jr., M.D.; George R. Minot, M.D.; William B. Castle, M.D.; William D. Stroud, M.D.; George B. Eusterman, M.D. The Year Book Publishers, Chicago, 1943. Price, \$3.00.

**THE MIND OF THE INJURED MAN**—By Joseph L. Fetterman, M.D., assistant clinical professor of nervous diseases, Western Reserve University School of Medicine, Cleveland, Ohio. Industrial Medicine Book Company, Chicago, 1943. Price, \$4.00.

**THE 1942 YEAR BOOK OF GENERAL THERAPEUTICS**—Edited by Oscar W. Betha, M.D., professor of clinical medicine, Tulane University School of Medicine. The Year Book Publishers, Chicago, 1942. Price, \$3.00.

**THE PRINCIPLES AND PRACTICE OF OBSTETRICS**—By Joseph B. DeLee, M.D., formerly professor of obstetrics and gynecology, emeritus, University of Chicago, consultant in obstetrics, Chicago Lying-in Hospital and Dispensary, consultant in obstetrics, Chicago Maternity Center; and J. P. Greenhill, M.D., attending obstetrician and gynecologist, Michael Reese Hospital, obstetrician and gynecologist, associate staff, Chicago Lying-in Hospital, attending gynecologist, Cook County Hospital, professor of gynecology, Cook County Graduate School of Medicine. Eighth edition, entirely reset. W. B. Saunders Company, Philadelphia, 1943. Price, \$10.00.

**ESSENTIALS OF SYPHILOLOGY**—By Rudolph H. Kampmeier M.D., associate professor of medicine, Vanderbilt University School of Medicine; in charge of the Syphilis Clinic and visiting physician to Vanderbilt University Hospital; with chapters by Alvin E. Keller, M.D., and J. Cyril Peterson, M.D. The J. B. Lippincott Company, Philadelphia, 1943. Price, \$5.00.

**METHODS OF TREATMENT**—By Logan Clendening, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals; and Edward H. Hashinger, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals, attending physician, St. Luke's Hospital, Kansas City, Missouri. Eighth Edition. C. V. Mosby Company, St. Louis, 1943. Price, \$10.00.

## BOOK REVIEWS

### THE GENEALOGY OF GYNAECOLOGY

By James V. Ricci, M.D., associate clinical professor of gynaecology and obstetrics, New York Medical College; director of gynaecology of the City Hospital, New York; associate attending gynaecologist and obstetrician, Flower and Fifth Avenue Hospitals, New York; consultant in gynaecology and obstetrics, Broad Street Hospital. The Blakiston Company, Philadelphia, 1943. Price, \$8.50.

This volume should be of interest not only from the viewpoint of material contained but also the fact that it portrays the influence of politics on medicine. The title of the work well expresses the contents inasmuch as the author has covered the major periods and names in medicine and has done so in a very scholarly fashion. The only criticism that could be offered is the fact that the Chinese medicine is completely neglected, and this criticism is not valid inasmuch as the author consulted literally thousands of references in order to complete this work. In the accuracy of his philosophical interpretations and his understanding of the political

social environments of various periods, the author is a much abler historian than many who devote themselves entirely to history. M. J. R.

### GASTRO-ENTEROLOGY

#### VOLUME I, THE ESOPHAGUS AND STOMACH

By Henry L. Bockus, M.D., professor of gastro-enterology, University of Pennsylvania Graduate School of Medicine. W. B. Saunders Company, Philadelphia, 1943.

This is the first of a three volume work. It is indeed a valuable piece of work and truly remarkable in that its 831 pages cover in detail the entire field of diseases of the esophagus, stomach and duodenum, commanding the interest of the general practitioner and gastro-enterologist alike.

The first 77 pages deal with the physical examination of the patient and discussions on general medical problems. The author discusses everything from the coated tongue to flatulence and the various functional disorders which are familiar problems to us all.

There is a 317 page monograph on peptic ulcer, its treatment, and its medical and surgical complications.



The recent advances in the knowledge of physiology are summarized at the beginning of each section. All approved diagnostic methods are clearly evaluated and many are illustrated. There are many x-ray illustrations.

The entire work is very readable, contains no dogmatic statements, and is the final product of hard, honest, intelligent study.

C. A. S.

#### NUTRITION AND DIET IN HEALTH AND DISEASE

By James S. McLester, M.D., professor of medicine, University of Alabama, Birmingham, Alabama. Fourth edition, thoroughly revised. W. B. Saunders Company, Philadelphia, 1943. Price, \$8.00.

The new fourth edition of this standard text and reference book on diet is a worthy successor to the popular past editions. The first portion of the book is devoted to a discussion on nutrition in health, taking up the various physiologic and chemical phases of the utilization of food. Also in this section there is a new and up to date chapter on the vitamins. Food products and the diet of the normal infant, school child, and adult are extensively covered. There is a chapter on the diet and reproduction, discussing fertility and pregnancy.

The second portion of the book, nutrition in disease, has a chapter on the deficiency diseases which contains the latest views in the conception of these problems. There are excellent chapters on diabetes and obesity. Two chapters are devoted to the discussion on diseases of the digestive organs. Specific consideration is also given to gout, food poisoning and allergy, heart disease, febrile conditions, anemias, and many other disturbances where diet and nutrition are especially important.

This book is well written, reads easily, and contains many sample diets which are calculated to help the physician in the management of the various diseases and conditions discussed. Better still, it will give him an insight and better understanding of the fundamental processes of nutrition and their variation in disease.

A. L. J.

#### REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY

Issued under the direction and supervision of the Council on Pharmacy and Chemistry of the American Medical Association. American Medical Association, Chicago, 1943. Price, \$1.00.

Through the years the size of this volume has grown with the increased work of the Council on Pharmacy and Chemistry until the present edition has the same number of pages as the book published in 1908, which covered the Council's first four years of activity. Some of the functions of this group are well known, but a more thorough understanding of

the Council's scope may be gained from the annual reprint. This volume epitomizes that phase of the Council's work which may be said to be collateral to the "acceptance" of drugs, the informative consideration of current medical problems in the interest of rational therapeutics. It contains reports of studies by private investigators which were originally published in THE JOURNAL under the sponsorship of the Council, such as preliminary discussions of new developments in therapeutics and timely articles on the status of recognized agents, as well as reports of omission or rejection of products from New and Nonofficial Remedies. It also offers a record of current decisions on matters of Council policy.

Several of the reports are of particular interest for various branches of medical science: the use of bulk ether in anesthesia, the absorption of surgical gut (catgut), the higher types of antipneumococcus rabbit serum, the surgical and medical treatment of animals with experimental hypertension, and the status of racemic epinephrine solutions for oral administration. The reports in this small, compact volume represent expert medical consensus and are proffered to aid in the consideration of the value of therapeutic agents.

#### FOUR IMPORTANT NEW MEDICAL JOURNALS

Four new publications have recently been launched into the medical literature. These are *Quarterly Review of Medicine*, *Quarterly Review of Surgery*, *Quarterly Review of Obstetrics and Gynecology* and *General Practice Clinics*. As implied by the title the first three are published four times a year, while the *General Practice Clinics* is published six times a year. The journals are published at 314 Randolph Place, N. E., Washington 2, D. C. The subscription price for each journal is \$9.00 per year or \$25.00 for three years.

Into the minds of most readers will immediately pop the question—why another journal when there are more than the average physician can possibly keep up with now? Apparently it is because of this very plethora of medical magazines that this new series has been created. Essentially each journal consists of abstracts of important articles appearing in other medical journals all over the world. Thus the objective "is to bring together in one publication, in concise form the essence of *all* that is published . . . from the world's voluminous literature, so that with a minimum of time and expense you (physicians) are enabled to keep abreast of the rapid progress in these fields." The material is condensed from over 300 other medical publications. *General Practice Clinics*, for instance, has 108 separate articles appearing in 117 pages. Editorial boards have been selected from among the nation's outstanding doctors.

All in all we are inclined to the opinion that the idea is good, and that American medicine will be benefited. At any rate we would advise each physician looking into the matter for himself.

L. F. H.







Lee R. Woodward, M.D.

President

Iowa State Medical Society

1943-1944

# The JOURNAL

of the

# Iowa State Medical Society

VOL. XXXIV

DES MOINES, IOWA, MARCH, 1944

No. 3

## IOWA STATE MEDICAL SOCIETY

Organized in 1850

### Ninety-third Annual Session

Des Moines, Iowa - April 20 and 21, 1944

Do not fail to register. Registration Bureau—Hotel Fort Des Moines



## PROGRAM OF GENERAL SESSIONS

### Thursday Morning, April 20

9:00 a. m.

#### Main Ball Room

Daniel J. Glomset, M.D., Des Moines, Chairman  
of Medical Section, Presiding

Opening Exercises: 9:00-9:15

#### Greetings—

CHRISTIAN B. LUGENBUHL, M.D.,  
President, Polk County Medical Society

#### Response—

GEORGE H. KEENEY, M.D., First Vice  
President, Iowa State Medical Society

Address— 9:15-9:45

#### Physiologic Aspects of Cardiac Disease

ANTON J. CARLSON, Ph.D., Professor  
of Physiology, University of Chicago,  
Chicago, Illinois.

Address— 9:45-10:05

#### The Rheumatic Heart

LESLIE W. SWANSON, M.D., Mason  
City

Recess to Visit Exhibits— 10:05-10:15

Address— 10:15-10:35

#### Making a Cardiac Diagnosis

FRED M. SMITH, M.D., Iowa City

Address— 10:35-10:55

#### Pathogenesis of Congestive Heart Failure

BENJAMIN F. WOLVERTON, M.D.,  
Cedar Rapids

Address— 10:55-11:15

Treatment of Congestive Heart Failure  
ROBERT N. LARIMER, M.D., Sioux City

### Thursday Afternoon, April 20

2:00 p. m.

#### Main Ball Room

John E. Rock, M.D., Davenport, Chairman  
of Eye, Ear, Nose and Throat Section,  
Presiding

Address— 2:00-2:30

#### Procedures Following Some of the More Frequent Eye Injuries

WILLIAM N. HAHN, M.D., Omaha,  
Nebraska

Address— 2:30-3:00

#### A Postwar Industrial Medical Program

CLARENCE D. SELBY, M.D., Detroit,  
Michigan

Recess to Visit Exhibits 3:00-3:10

Address— 3:10-3:40

#### Developments in Military Neuropsychiatry

LIEUT. COLONEL MALCOLM J. FARRELL,  
M.C., Washington, D. C.

Address— 3:40-4:00

#### Eye Findings in Diabetes

IRA N. CROW, M.D., Fairfield

Movie— 4:00-4:30

#### Otoscopy in the Inflammations



# PROGRAM OF GENERAL SESSIONS

## Friday Morning, April 21

9:00 a. m.

### Main Ball Room

Lee R. Woodward, M.D., Mason City, President of  
Iowa State Medical Society, Presiding

Address— 9:00-9:30

#### Postwar Planning

WALTER H. JUDD, M.D., Washington, D. C.

Address— 9:30-10:00

#### The Activities of the Council on Medical Service and Public Relations and the Responsibilities of Individual Physicians

ALFRED W. ADSON, M.D.,  
Rochester, Minnesota

Recess to Visit Exhibits— 10:00-10:10

Address— 10:10-10:40

#### A Clinician's Dabbling in Scientific Research

DANIEL J. GLOMSET, M.D., Des Moines

President's Address— 10:40-11:00

LEE R. WOODWARD, M.D., Mason City

Report of House of Delegates and Installation of New President 11:00-11:20

## Friday Afternoon, April 21

2:00 p. m.

### Main Ball Room

Everett D. Plass, M.D., Iowa City, Chairman  
of Surgical Section, Presiding

Address— 2:00-2:30

#### Toxemias of Late Pregnancy

NORMAN F. MILLER, M.D., Professor  
of Obstetrics and Gynecology, University of Michigan Medical School,  
Ann Arbor, Michigan

Address— 2:30-2:50

#### Pregnancy and Heart Disease

EDWARD W. ANDERSON, M.D., Des Moines

Recess to Visit Exhibits 2:50-3:00

Address— 3:00-3:20

#### Abortions

WILLIS E. BROWN, M.D., Iowa City

Address— 3:20-3:40

#### Obstetric Anesthesia

EDITH THOMPSON, M.D., Iowa City

Address— 3:40-4:00

#### Carcinoma of the Cervix

HAROLD W. MORGAN, M.D., Mason City

Question and Answer Period— 4:00-4:30

The five speakers will answer questions from the floor

## Eye, Ear, Nose and Throat Section Meeting

### Thursday Morning, April 20

#### Green Room

Address— 9:30-10:00

#### Therapeutic Agents in the Treatment of Glaucoma

WILLIAM N. HAHN, M.D., Omaha,  
Nebraska

Address— 10:00-10:30

#### Case Report of Celiac Disease with Acute Mastoid

HENRY A. BENDER, M.D., Waterloo

Discusser: Harry H. Lamb, M.D., Davenport

Address— 10:30-11:00

#### The Hard of Hearing and Hearing Aids

CHARLES C. WALKER, M.D., Des Moines

Address— 11:00-11:30

#### Case Report

CARL E. SAMPSON, M.D., Creston

## House of Delegates

First Meeting, Wednesday Evening, April 19  
8:00 p. m.

South Ball Room—Hotel Fort Des Moines

#### Roll Call

Approval of Minutes of Friday Morning Session, 1943

#### Reports of Officers

Reports of Committee Chairmen

Memorials and Communications

New Business

Election of Committee on Nominations

Second Meeting (Time and Place to be determined at first meeting)

#### Roll Call

Reading of Minutes

Report of Committee on Nominations

Election of Officers

Reports of Committees

Unfinished Business

New Business

Announcement of Committees

Adjournment

# OUR GUESTS

CAT.



NORMAN F. MILLER, M.D.  
Ann Arbor

CAT.



ANTON J. CARLSON, Ph.D.  
Chicago

CAT.



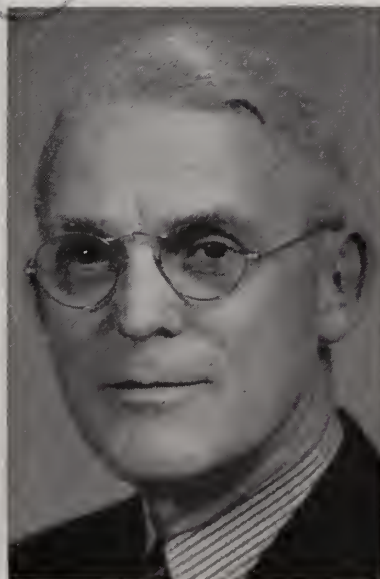
WILLIAM N. HAHN, M.D.  
Omaha

CAT.



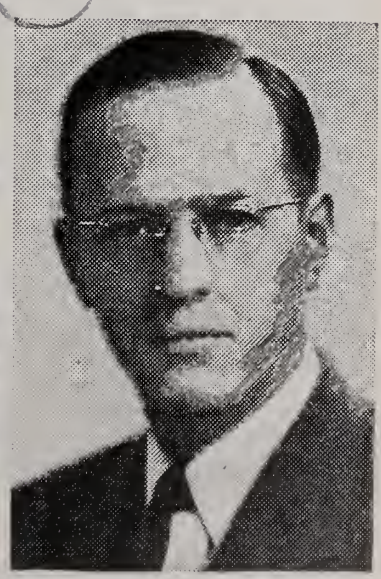
ALFRED W. ADSON, M.D.  
Rochester

CAT.



CLARENCE D. SELBY, M.D.  
Detroit

CAT.



WALTER H. JUDD, M.D.  
Washington



## Scientific Luncheons

These luncheons are open to any physician desiring to attend. Tickets will be on sale at registration desk in lobby.

**Thursday, April 20**

South Ball Room

12:15 p. m.

Panel Discussion—Clinical Electrocardiography

HORACE M. KORN, M.D., Iowa City, Chairman

FRED M. SMITH, M.D., Iowa City, Discussor

BENJAMIN F. WOLVERTON, M.D., Cedar Rapids, Discussor

ROBERT N. LARIMER, M.D., Sioux City, Discussor

**Thursday, April 20**

Green Room

12:15 p. m.

Eye, Ear, Nose and Throat Section Luncheon

**Thursday, April 20**

Flamingo Room

12:15 p. m.

Fracture Committee Luncheon

Address: Military Injuries of the Extremities

MAJOR JOSEPH E. MILGRAM, M.C.,

Schick General Hospital

**Friday, April 21**

South Ball Room

12:15 p. m.

Panel Discussion of Economic Matters

ALFRED W. ADSON, M.D., Rochester, Minnesota

WALTER H. JUDD, M.D., Washington, D. C.

**Friday, April 21**

Green Room

12:15 p. m.

Panel Discussion—Common Lesions of the Cervix

NORMAN F. MILLER, M.D., Ann Arbor, Michigan

### LOCAL COMMITTEES

#### Clinic Committee

Arthur E. Merkel, Chairman

Howard D. Gray

Lee F. Hill

Clifford W. Losh

John C. Parsons

Robert L. Parker

Floyd W. Rice

Frank W. Fordyce

John Russell

#### Hosts for Guest Speakers

Wilbert W. Bond

James A. Downing

John B. Synhorst

Martin I. Olsen

Oliver J. Fay

Daniel J. Glomset

#### Smoker Committee

Loren K. Meredith, Chairman

Edward W. Anderson

Oran W. King

Verl A. Ruth

James W. Young

### PRECONVENTION CLINICS

The Polk County Medical Society has planned a series of preconvention clinics to be held at Broadlawns General Hospital in Des Moines, Wednesday afternoon, April 19. Every physician in Iowa is cordially invited to attend these clinics, the program of which will be published in detail in the April JOURNAL.

### PRECONVENTION GOLF TOURNAMENT

In all probability the annual Iowa State Medical Society Golf Tournament will be held on Wednesday afternoon, April 19, at Wakonda Club, in Des Moines.

LAWRENCE D. SMITH, M.D., Secretary  
1332 Des Moines Building  
Des Moines 9, Iowa

### ANNUAL SMOKER

The Polk County Medical Society will be hosts at a smoker to be held in the Main Ball Room of Hotel Fort Des Moines, Thursday evening, April 20, at eight o'clock. All members of the Iowa State Medical Society are cordially invited to come for an evening of relaxation.

### MILITARY SURGEONS' DINNER

The Military Surgeons will hold a dinner Thursday evening, April 20, at six p. m. Lt. Col. Malcolm J. Farrell, M.C., of Washington, D. C., will be a guest. All doctors are invited to attend.

## State Society of Iowa Medical Women and AMERICAN MEDICAL WOMEN'S ASSOCIATION—Branch 19

**Thursday, April 20**

Younkers Tea Room

Des Moines

Luncheon—12:00 noon

Dinner—6:30 p. m.

The program will consist of the annual business meeting, and talks on projects of the American Medical Women's Association and other items of interest at this time. All members are urged to attend, and all women physicians who are members of their county medical societies are invited to become a member of the American Medical Women's Association and State Society of Iowa Medical Women.

# WOMAN'S AUXILIARY

## to the

# Iowa State Medical Society

Organized May 9, 1929, Des Moines, Iowa

FIFTEENTH ANNUAL MEETING

Headquarters—Hotel Kirkwood

Des Moines, Iowa

### PROGRAM

Thursday, April 20

- 9:30 a. m. Registration  
Hotel Fort Des Moines  
Hotel Kirkwood
- 10:00 a. m. Executive Board Meeting, Hotel Kirkwood  
For Board Members and County  
Auxiliary Presidents
- 7:00 p. m. Dinner and Bridge, Youngers Tea  
Room

Friday, April 21

Hotel Kirkwood

9:30 a. m.

Mrs. W. S. Reiley, President, presiding

Invocation—

REVEREND AUGUST SAMUELSON, Chaplain, Iowa  
Lutheran Hospital

Address of Welcome—

MRS. HENRY I. MCPHERRIN, President, Polk  
County Woman's Auxiliary

Response—

MRS. JAY C. DECKER, Sioux City, President-Elect

Reading of Minutes of Last Meeting—

Announcement of Committees—

Report of President—

Report of State Officers—

Report of Standing Committees—

Reports of County Presidents—

Announcements—

Report of Registration—

Unfinished Business—

New Business—

Address—

Cadet Nurse

Memorial Service—

MRS. JAMES A. DOWNING

Music—

Roosevelt High School Double Quartet

Adjournment—

### LUNCHEON

12:30 p. m.

Hotel Kirkwood

Greetings—

M. C. HENNESSY, M.D., Council Bluffs  
President-Elect, Iowa State Medical Society

Greetings—

EDWARD A. HANSKE, M.D., Bellevue  
Chairman, Advisory Committee to the Woman's  
Auxiliary

Address—

MRS. EBEN J. CAREY, Milwaukee, Wisconsin  
President, Woman's Auxiliary to the American  
Medical Association

Moving Picture—

State Department of Health

Reading of Minutes—

Report of Resolutions Committee—

Report of Nominating Committee—

Election of Officers—

Installation of Officers—

Election of Delegates to National Convention—

Adjournment—

Postconvention Board Meeting

3:30 p. m.

This program, social and business, is for all visiting women. All eligible women are urged to become members. Wives of doctors in service are invited.

Food is expensive; it is unpatriotic to waste it. Upon arrival in Des Moines, please register and make your reservations for luncheon and dinner early.



## The Practical Management of Headache\*

ARTHUR W. PROETZ, M.D., St. Louis, Missouri

The subject of headache envelops a great deal of territory, and it would take several lectures to try to cover it. In order to make this half hour as effective as possible, I have chosen to confine myself to one very small but exceedingly important phase; namely, the management of the individual case, the practical management of headache. What I have to say consists largely of suggestions because I might as well confess at the outset that I have not the complete answer to the treatment of headache.

The mechanisms of headache have all been fairly well covered in the literature, and I shall not go into those except as it suits my purpose to apply them to treatment. There have also been various classifications of headache which more or less conform with one another, and which I shall also, for the time being, set aside, not because I do not agree with them but simply because I want to suggest another classification which is not scientific in its basis but which is extremely useful clinically. I shall come to that in a moment.

The immediate causes of headache are restricted, possibly, to two or three types, and perhaps ultimately to only one type; namely, a vascular disturbance. On the other hand, there are throughout the body other mechanisms activating these essential mechanisms, which number twenty or thirty and which make the subject of headache such a terrific thing to attack when one confronts the sufferer.

We know that there are certain sensitive areas in the brain, or in the head I should say, and certain more or less insensitive areas. The dural arteries are sensitive. Certain of the other cranial arteries and the extracranial arteries are sensitive. The basilar portions of the dura itself are sensitive, as are the linings of the ventricles. The brain substance in itself is relatively insensitive, and the dura, aside from the basilar portions, is somewhat insensitive. We have only a few areas and structures, therefore, which are really concerned in headache.

The patient who comes to the doctor with a headache is in a rather sad state. He has an idea, let us say, that it is his eyes. When he goes to the ophthalmologist, the ophthalmologist, instead of saying, "Look here, headache is caused by some thirty or forty things; you go to someone who is conversant with those things and let him find the cause of your headache," is likely to say,

"Your eyes are all right. I am sure it is not your eyes. You should go over and see the sinus doctor across the hall, because it looks to me like a sinus headache."

The sinus doctor examines him and says, "I think you should see a neurologist." The neurologist sends him to the dentist. About that time he becomes discouraged, having had nothing done for his headache and being just where he was at the start after four competent examinations. One cannot blame any one of the specialists, and certainly not the patient. Nevertheless, everything is just where it was in the beginning (except that the patient is out of pocket and perplexed). The patient should be directed to someone who is essentially interested in headache and who will take the trouble to go through the entire category of things which might cause it.

For my own purposes I have made a little classification which is, as I say, thoroughly unscientific and at the same time thoroughly practical. It is simply this: Class A, headaches of definite, demonstrable origin—regardless of the origin. Class B, headaches of semi-demonstrable origin, or questionable origin. Class C, headaches of undemonstrable origin, at least to me; the kind of headache which in the old days would have been called idiopathic. That word is a fine wastebasket. It is the headache of this type which really is perplexing to us.

The demonstrable causes can be divided again into local and remote causes. There are definitely demonstrable, remote causes, such as digestive disturbances, pressure in the pelvis, tumors up and down the spine, and a number of other things. Histamine headaches might come under that classification, because they are demonstrable and they are definite. Personally, I have not seen as many histamine headaches, proportionally, as has Dr. Horton. I think he reported about 78 out of 123 cases; I have forgotten what it was, but it was a large proportion. I have seen very few, but the entity is certainly definite.

For the semi-demonstrable type, the psychoneuroses, the anemias, the various fatigues, I say "semi-demonstrable" because a patient may have anemia and a headache, but it is often hard to attach the headache to the anemia. Sooner or later the health of the patient improves, the headache disappears, and you say the patient had a headache because he was anemic. It is one of the intangible things. I believe the migraine headaches come under this classification. Remember

\*Presented before the Ninety-second Annual Session, Iowa State Medical Society, Des Moines, April 29 and 30, 1943.

that this is purely a working arrangement, a tool; it is not a scientific classification of headache.

The poor fellow with a hereditary type of headache is unfortunate. There are people who think that any persistent headache is hereditary and that, once the patient is born, it is too late. I do not feel that fatalistic about it; I think there are a great many hereditary headaches which can be relieved. There are those, also, who think that all severe headaches are simply a matter of eating onions or lobster or rhubarb. I also do not agree with them. The literature of headache is colored from end to end by the personal experiences of authors, and they are not entirely unprejudiced.

The "idiopathic" headaches, to my mind, are largely vascular in their ultimate nature. They may be caused by endocrine disturbances, hypertension, or a number of other things, but they are the headaches the causes of which do not become apparent through any laboratory test.

What to do? I believe the most important thing is the history. That is a platitudinous thing to say, but when I say "history" I mean a headache history, aside from the general history. I mean a very complete headache history which is written down according to a definite plan, preferably upon a prepared chart, through which the investigator can put his finger on symptoms which seem to be related. Such a chart places symptoms in juxtaposition which ordinarily would seem to have no relationship.

After one has looked at a hundred such histories, he begins to see relationships never suspected before and, more times than not, those very relationships are the important ones.

In following these cases I use two types of charts. The first chart is extremely detailed in all its references. The figures are simply for statistical purposes. The second chart was originally prepared for the study of the allergies. However, it is equally useful in the study of headaches. Some of the references are to foods, and some are to contacts, like dogs and face powder and feathers. The patient records his exposures on this chart for two or three weeks. It is a laborious job, to be sure, but it is well worthwhile. If every patient comes in with his own peculiar food and contact diary, it is difficult for the physician to evaluate it. He is not accustomed to the patient's handwriting and there is much about it that is uncertain. This chart gives accurate information. It also gives the patient an idea of the importance of detailed investigation and of the importance of small quantities of things such as pepper, for example, that he does not ordinarily consider important. Emphasis on that kind of thing often reveals the cause of a headache.

Since Class A, by definition, is the type of headache of known cause, the treatment of the headache is the treatment of the cause. The management of Class B, the semi-demonstrable case, is often a question of sociologic approach. One needs to determine what annoys the patient and find out what occupational difficulty he has. He may be subjected to unaccustomed postural strains, especially now with all the factory workers who have never worked in factories before. He may not sit right over his work. He may have a headache because he works long hours and does not get enough sleep, or because he is worried about his boy at the front. If we review the mechanism of headache as it has been laid down for us, we see that Class C is largely concerned with the dilatation and contraction of blood vessels in the brain.

Very few headaches are due to nasal causes or to the sinuses. The distention of the nasal mucosa is probably in itself not a cause of headache. I often refer to a classical case of a woman whose sinus roentgenograms with lipiodol showed a perfectly normal mucosa and a few hours later, after she slept on a goose-feather pillow, showed dilatation of the membrane in one of the maxillary sinuses to such an extent that it obliterated the sinus. The membrane was dilated to twelve times its normal thickness. The patient was not conscious of the thickening and experienced no pain.

The periosteum is closely bound to the bone. It is possible a sudden pulling or a distortion of the periosteum may cause sinus pain. Certainly a distortion of the mucosa does not. A distortion and tugging on the venous spaces and on the arteries of the brain and its coverings, however, is another thing.

We know that in patients with hypertension, for instance, if the pressure is high, or low, there is not likely to be a headache. When the pressure is changing, a headache is probable, and it is usually when the pressure is coming down and not when it is going up.

The first thing I do with a patient of this type is to prescribe ephedrine with a little seconal morning and evening for a few days, or three times a day, about  $\frac{3}{8}$  of a grain, and observe his response to the medication. One is surprised at the number of people whose headaches disappear simply on the administration of ephedrine. I do not think one should keep on administering ephedrine over a long period of time. Usually, when there is improvement, the headache stays away for some time. If the patient gets any reaction to ephedrine, you should look farther into the vascular causes.



What is the next thing to try? The administration of thyroid extract. I do not refer only to patients with low basal metabolic rates. There are people whose basal metabolic rates are 0 or  $-1$ ,  $-2$ , or  $-3$ , or maybe  $+2$ ,  $+3$ ,  $+4$ , or  $+5$  who suffer from thyroid deficiencies, with headache, and with or without other demonstrable side effects. Often they complain of unreasonable fatigue, even after plenty of sleep, and often headache after too much sleep. I administer thyroid extract to these people. It is surprising how many of the patients without a demonstrable thyroid deficiency will recover from their headaches on thyroid extract. There are people with a basal metabolic rate of  $+2$  or  $+3$  doing very well on 2 and 3 grains of thyroid extract who will not respond to 1 grain.

Williams and Kendall found that the proper functioning of the thyroid gland depends on a thiamin sufficiency. One can increase the thyroid administration to an extent otherwise inadvisable and eliminate the headache if thiamin is given at the same time. Those two things are, to me, most valuable; that is, the ephedrine experiment and the thyroid treatment.

The third phase of the treatment deals with the digestive tract and usually the lower digestive tract. I am not talking about demonstrable stasis or demonstrable spastic colitis. There are patients with headache which comes on suddenly, often with hunger or in some relation to the ingestion of food—a severe headache across the brow and usually radiating across the top of the eye and down to the occiput. In many such cases an enema stops the headache. A laxative given in time, however, may prevent such a headache. There seems to be either a local temporary stasis with absorption, or there may be pressure of fecal masses in the pelvis. I do not know what it is, except that it is usually accompanied with abdominal discomfort.

Hunger is another cause of headache, and we find it frequently in people who wait too long for lunch. They get a headache when they become hungry, but eating does not stop it. That is important in making the diagnosis. If, however, that person will eat something about eleven o'clock in the morning (it does not have to be much), he can prevent the headache.

There are other things which follow no particular pattern, which I shall only mention, such as the ingestion of alcohol. The question to be asked the patient is not do you drink or not, but how much do you drink? What kind of drinks do you tolerate, and in what relationship to food does your drinking affect your headache? There are

people who, after drinking a glass of wine, will the next morning have thick, ropy mucus in the posterior ethmoid cells or some other cells. The peripheral dilatation of the vessels in the sinuses produces an abnormal mucus which is much more difficult to eliminate than normal mucus.

A similar situation often occurs with tobacco. The question is not how much do you smoke, but the important thing to ask is do you or do you not blow the smoke through your nose? Do you or do you not inhale? Keep in mind, of course, the effect of the tar on certain spots of the nose, the sphenopalatine ganglion or on the vagus nerve. Patients who have headaches from smoking are usually those with a septal spur or some demonstrable constriction in the nasal fossa, so that eddies are produced which deposit tar in one particular spot. Should such a spot fall in a sensitive point, either the anterior nasal nerve or the sphenopalatine ganglion or its branches, it will produce a headache. Faulty heating and air conditioning in houses produce the same type of irritation.

In the smoker these deposits and their irritations are distal to the constricted point in the nose, because the deposits are produced on exhalation. In the person who breathes dry air in a furnace-heated house, the dry areas are proximal to the constriction because he gets it on inhalation. The mechanism is reversed.

The temporomandibular joint comes in for some suspicion, and also tension of the face, as well as the shoulders, under certain unaccustomed work, such as one finds in factory workers, stenographers, and pianists.

It should be remembered that there may be two causes for the same headache. One cannot say because he has removed Cause 1 without influencing the headache that Cause 1 had nothing to do with it.

There is one penalty that attaches to any success in the treatment of headaches; namely, the patients will send other patients who invariably will fall under Class D—those who are incurable.

#### CHANGE OF ADDRESS

Help your central office to maintain an accurate mailing list.  
Send your change of address promptly to the Journal,  
505 Bankers Trust Bldg.,  
Des Moines 9, Iowa

## PALINDROMIC RHEUMATISM\*

WILLIAM D. PAUL, M.D., and  
WILLIAM P. LOGAN, M.D.,  
Iowa City

A new form of rheumatism has recently been described by Hench and Rosenberg<sup>1</sup>. They gave it the name of "palindromic" rheumatism, a Greek word meaning to "recur" or to "return," which indicates one of its chief features. The principal characteristics of this syndrome are frequent attacks of acute arthritis, peri-arthritis and occasional para-arthritis with severe pain, considerable disability, swelling, and redness about the joint. These attacks appear suddenly and develop rapidly, lasting a few hours to days without leaving any residual symptoms or physical findings<sup>2</sup>. Many cases include para-arthritis, consisting of firm, tender, red swellings on the skin, generally associated with the attacks of arthritis. As does the arthritis, these swellings appear suddenly and disappear completely within a short time.

The cause of this condition is still obscure. Allergic and infectious factors have been postulated but not proved. The evidence at present points away from an allergic basis. The possibility that psychogenic factors may play a rôle has been suggested<sup>3</sup>. The natural course of the disease tends to be long, but without permanent crippling. Hench and Rosenberg give the following figures on prognosis based on their study of thirty-four cases: 15 per cent had an apparently spontaneous cure, 44 per cent were improved, 26 per cent remained unchanged, 11 per cent were worse, and four per cent died of coronary disease (one patient). No form of therapy has proved of any definite value, although cinchophen has been reported to give some relief.

## CASE REPORT

*History:* The patient, forty-nine years of age, entered the University Hospital July 17, 1943, with the following history: In July, 1941, she had had her first attack of arthritis. This consisted of sudden, sharp pain in both knee joints, followed shortly by slight swelling about these joints. Because of the pain there was considerable limitation of motion in the joints. By the next day this had completely disappeared. During the next fifteen months she had had four similar attacks involving the knees, ankles, feet, hands, and shoulders. After October, 1942, the attacks began to come much more frequently, as often as two or three times a day; they were of vary-

ing severity, but of the same character. The onset was abrupt; each attack lasted from several hours to several days, and then suddenly cleared up without any residual evidence of the attack. With these attacks the patient would frequently notice redness, as well as swelling, about the affected joints. Usually only one joint was involved, but at other times many joints were affected, or it would jump rapidly from joint to joint. Two weeks before admission she had had her most severe attack. Most of the joints of the extremities were involved to such an extent that for one week she was practically helpless in bed. A few days before admission this attack had completely disappeared except for slight stiffness in the right shoulder upon abduction of the right arm.

Usually with, but occasionally without the attacks of arthritis she would have symptoms of para-arthritis. These consisted of the sudden appearance of indurated, red patches on the skin, varying from one to several inches in diameter. These might occur almost any place on her body. The onset would often follow periods when the patient became nervous or angry. Also, she believed that eating eggs might play some part. The only associated symptom was mild nausea. She estimated that there had been at least one hundred severe, and several hundred minor attacks.

She had had nocturia and a weight loss of about thirty pounds. She had had the usual childhood diseases, a tonsillectomy, and a right-sided herniorrhaphy. There was no personal or family history of allergy. She believed her mother had had rheumatism, but did not recall its characteristics.

*Physical Examination:* The patient was a white woman, forty-nine years of age, who appeared well nourished and well developed. The oral temperature, during an attack, was 99.8 degrees. On the skin of the dorsum of the right hand there was a round, indurated, slightly elevated, red area, about 2 centimeters in diameter, which was painful on palpation. The skin of the fingers was shiny, and crease marks were less prominent than normally. The teeth were carious. The neck was normal. The thorax was symmetrical with equal expansion. The lungs were normal to auscultation and percussion. The heart was not enlarged, the rhythm was normal, and the cardiac sounds were normal; there were no murmurs. The blood pressure was 118/70, and the pulse rate was 100 per minute. The abdomen was flat with no palpable masses or tenderness. Pelvic examination was deferred because the

\*From the Section of Physical Therapy of the Department of Internal Medicine, State University of Iowa, Iowa City.



patient was menstruating. Limited motion in both wrists and finger joints was present because of pain. Slight swelling and redness were present over the carpophalangeal joints. Pressure over the involved joints produced pain. Except for slight stiffness in the right shoulder joint upon abduction of the arm, the remainder of the joints were entirely normal.

*Laboratory Data:* The hemoglobin was 11 grams; the erythrocyte count 3,780,000; and the leukocyte count 3,250 to 4,500. The blood urea nitrogen was 14.7 milligrams per cent; creatinine 1.0 milligrams per cent; the uric acid 2.6 milligrams per cent; and the blood fat 340 milligrams per cent. The electrocardiogram was normal. A brucellergin skin test was negative. Roentgenograms of the wrist joints showed nothing abnormal.

*Subsequent Course:* On the day of admission the patient developed an attack of arthritis in both wrist joints. She also had para-arthritis involvement on the dorsum of the right hand. The latter was completely gone in forty-eight hours. At about the same time, the movements of the right wrist returned to normal. The involvement of the left wrist persisted, however, and she developed pain in both shoulders. The patient was given oxyliodide and physical therapy, and was instructed in maintaining active motion in all joints. This form of therapy seemed to improve the arthritis. At the time of discharge she was completely free from any symptoms.

#### COMMENT

This patient presented the characteristic picture of palindromic arthritis. The psychoneurotic tendencies of this patient were voluntarily given by the patient as an important cause for the onset of her symptoms. The history of the attacks being precipitated by eating eggs was doubtful. Cinchophen given in the form of oxyliodide, along with the physical therapy and active motion in the joints, appeared to help this patient.

This case is presented in order to stimulate recognition of the condition. The prognosis of this disease is very different from that of chronic rheumatoid arthritis in that there is no permanent crippling.

#### BIBLIOGRAPHY

1. Hench, P. S., and Rosenberg, E. F.: Palindromic rheumatism; "new," oft-recurring disease of joints (arthritis, peri-arthritis, para-arthritis) apparently producing no articular residues; report of 34 cases (its relationship to "angioneural arthrosis," "allergic rheumatism" and rheumatoid arthritis). *Proc. Staff Meet., Mayo Clin.*, xvi:808-815 (December 17) 1941.
2. Thompson, J. L., Jr.: Palindromic rheumatism; report of 2 cases. *M. Ann. District of Columbia*, xi:189 (May) 1942.
3. Mazer, M.: Palindromic rheumatism. *Jour. Am. Med. Assn.*, cxx:364-365 (October 3) 1942.

## THE SOCIAL AND MEDICAL ASPECTS OF THE IOWA TRAINING SCHOOL FOR BOYS AT ELDORA\*

RALPH E. GRAY, M.D., Eldora

Present day medicine deals more with the prevention of diseases than did the old school which "just treated." I well remember the upbraiding an old doctor gave me the first year I was in practice because I was successful in my efforts to add the vaccinations for smallpox and diphtheria to our public school health program. He said, "You young doctors come out here and vaccinate all the kids, so we don't have any more epidemics; you operate and take out all the tonsils, so there is no more rheumatism or bad hearts; you even drain all the swamps, so the malaria and typhoid are gone; and now we don't have anything to do. It is all due to you young fellows coming out of college with your new-fangled ideas. I used to keep three teams in my barn, and I had a driver ready to go on a moment's notice. Now I have only one team and no driver. We are going to starve to death." Since this lecture from the "old school," I have had an opportunity to put preventive medicine to a test.

For the past sixteen years I have had complete charge of the boys at the Hospital of the Iowa Training School. During these years 4,335 boys, ranging in age from ten to twenty years, have been committed to the Training School. My orders from Supt. O. S. Von Krog were to "make and keep the boys healthy." With these orders and without interference from parents, relatives, or teachers, I set out to make my own rules and regulations concerning the health of the boys and to run the small well-equipped hospital.

It is at this hospital that the boys are examined both upon admission to the School and before their release. Here they are also cared for during illness. The hospital has twenty-nine beds, a small emergency operating room, treatment room, drug room, and two large solariums with convalescing rooms. The dentist also has his office in the hospital. A full-time nurse and an assistant nurse are employed to care for the boys who are in bed and in the convalescing rooms. Unlike a city hospital, our patients do not go home to convalesce. In our school a boy must be well enough to attend school or work before he is released; therefore, we have no other place for a convalescing boy.

Each of these 4,335 boys has remained under my care from one to eight years, because his

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behavior determines the length of time he spends in the Training School. The merit system is used: that is, a boy receives fifteen merits each day for good behavior. Six thousand merits are required before he is eligible for parole. If a boy breaks a rule of the school, he loses merits according to the offense. Then he must stay longer to gain his six thousand merits.

Upon admission to the school, each boy is given a complete physical examination to prevent his bringing any contagious diseases to the boys. I have wished for, but do not have, an observation room where the boy could be kept for at least three weeks during the incubation period for all contagious diseases. The record of the physical examination is kept in the boy's folder at the hospital. A copy is also sent to the superintendent's office, so that he will know the condition of the boy in case of inquiry from the boy's parents regarding his health.

The boys with major defects such as hernia, chronic appendix, and orthopedic deformities are sent to the University Hospital at Iowa City for correction at some time during their stay at the School. If the case is not urgent, I require a boy to possess five thousand merits; by that time he has learned how to behave, to respect those in authority, and to appreciate what we are trying to do for him in making him as nearly perfect physically as we can before sending him out into the world to become a useful citizen.

Emergencies are handled at our own hospital by a recognized surgeon or sent to Iowa City if the boy's physical condition will permit sending him that distance. All minor surgery and tonsillectomies are done at our own hospital.

Each boy is vaccinated for diphtheria, smallpox, and tetanus upon admission to the institution. I never fear an epidemic of these diseases, but occasionally a sporadic case of some contagious disease does develop. However, by strict isolation and routine examination of all the boys who have been exposed, epidemics have been prevented even with the boys in such close contact as they are in their sleeping, eating, and working quarters.

I find some very interesting and surprising cases of various conditions in my entrance examinations. For instance, one Saturday a boy came in who weighed 294 pounds. We had no ready-made clothes to fit him. The tailor and the tailor shop boys, who make all the clothes for the boys at the School, had to be called in on Sunday morning to make this heavyweight an outfit of clothing. This boy stayed with us a little over one year, and he made good. When upon discharge he weighed only 190 pounds, he said, "I

feel so much better that I wonder why I was ever so fat and lazy."

Another boy who came in had had his left leg amputated at the hip. He was discouraged and felt that the world owed him a living because of his misfortune. I sat down and had a heart-to-heart talk with him and told him of my condition. He brightened up and asked what he could do. I told him he would have to use his head and hands instead of his heels and learn a trade in which legs were not essential. I recommended him to the print shop. Then I secured an artificial limb for him, so that he could walk with only a slight limp. During the eighteen months he was with us, he became an expert linotype operator. We were able to secure a position for him with an Omaha newspaper at a salary of twenty-two dollars per week. He went out a self-supporting, respectable citizen. I could go on with many similar instances, but I shall not take your time to do so.

Then there is the undernourished, anemic boy who has shifted for himself as best he could. He is sent to the School. We clean him up, feed him a plain, nourishing, wholesome diet, and give him regular hours of sleep, work, and play. In three or four months he is a different boy because of his regular routine.

We do not feed the boys a fancy menu, but rather we give them plain, wholesome food planned by the School's dietitian. The greater part of the food is composed of products grown on our own 870 acre farm. The boys do all the work on this farm under the direction of a master farmer.

A Wassermann test is made on each boy upon his admission. I am glad to say that so far we have had positive reactions in only one-half of 1 per cent. About one-half of these are congenital and the rest are acquired; those with positive reactions are given treatment. About 50 per cent stay long enough to have a negative reaction. I had one Negro boy who still had a positive reaction after eight years of treatment, so I believe he is one of those positive-fast patients.

About one-half of 1 per cent of the boys who enter with a gonorrheal infection are given intensive treatment and are usually cured in four to eight weeks. From my limited experience with this type of case, I have had the best and fastest results by absolute bed rest and hot wet packs applied to the affected parts. Since the sulfonamide drugs have come in, I use them, but I do not see much faster recovery than in the old types of cures.

The most frequent illness we have at the School is tonsillitis with its occasional complications of rheumatic fever and cardiac involvement. These



diseased tonsils are removed when the boy is in condition and we have the consent of the boy's parents. Of course we have the usual run of colds, aches, and pains; these are treated in the treatment room, after which the boys are sent back to school or work.

The average population of the School is between six hundred and six hundred and fifty boys. Since it is a vocational school, the boys go to school one-half day and work in some department to learn a trade the other half of the day. We have our share of injuries because boys of this age have not gained the knowledge of "safety first." These accidents are taken care of as they arise; I am on call twenty-four hours a day. I make my routine rounds at the hospital each morning. Immediately after breakfast any boy has the privilege of seeing me in my office at the hospital any morning of the year. No matter how trifling his ailment, all he needs to do is ask his family manager for a pass to the hospital. I sometimes think they come to the hospital in order to get out of an hour or two of work. I always give the boy the benefit of the doubt and keep him under observation if his symptoms are such that I cannot at once make a diagnosis. I have some stallers and a few malingerers. One malingerer feigned snow blindness for about ten days. While I had him in the hospital a well-known eye specialist saw him who said, "With the corneal reflex gone and blindness for this length of time, he should be sent to the eye department at Iowa City." The boy was sent. When he got in the University Hospital, he asked to go to the toilet. The attendant led him in and went outside to wait for him. The boy's sight suddenly returned when the air from the open window in the restroom struck him; he left the attendant waiting his return.

The regular routine of the day is as follows: Rising—6:30 a.m.; breakfast—7:15; work or school until 11:30; dinner at 12:00 followed by a rest period until 1:15 p.m.; work or school until 4:45; prepare for supper at 5:30; play until 8:00 p.m. when all boys are put to bed. Saturday afternoons and holidays are rest and play times. On Sundays they rise one hour later, attend chapel at 10:30 a.m. and 2:30 p.m., and rest the remainder of the day.

I am connected directly with the hospital and health of the boys; but our School recognizes the fact that for a boy to have a well-rounded life, the mental, physical, and spiritual sides must all be cared for. These are so closely interwoven that I must tell you of all three.

The spiritual aspect is cared for by a Chaplain to whom the boys go for spiritual help. He

preaches on Sunday afternoons. The boys study their Sunday School lessons in their cottages. On Sunday morning they assemble in the Chapel for Sunday School, which is conducted by the Superintendent with the boys taking part in the lesson study. The Catholic boys have their Mass with the priest from Eldora in charge.

As we take up the education of the boys, let us remember that our School is a Vocational Training School and not a reformatory in any sense of the word. We have no walls, fences, or jails with the proverbial bars. If you would visit our Institution (and I extend a cordial invitation to any member of this Society and his friends to visit us at any time), you would see the boys running errands on the campus or in groups working in shops or fields under a supervisor. If you would stop to talk with them, I dare say you would find them much more courteous and pleasant than any of the boys in our city high schools. Because this School is on a semi-military basis, the boys have the utmost respect for all superiors.

We have a four year high school and trade shops. The boys are assigned to the trades for which they are best fitted. Some of the trades are those of barber, florist, printer, and baker. Here they learn under a competent instructor.

Do not get the idea that it is all work and no play. The boys have their inter-company athletic contests each evening, Saturday afternoons, and holidays. Each boy plays regardless of how well or how poorly he may play baseball, basketball or football; each boy is placed on a team according to his ability and thus develops the desire to do better. There are no poor athletes sitting on the sidelines. Each boy is encouraged to do his best no matter how crude his first attempt may seem. This develops self confidence in the boy. He will try to do better in all things that may come into his life, and it helps him to be more prepared to master them.

We try to teach the moral obligations of each boy to himself and to others so that each one will be able to fill his place in society instead of being a parasite.

The boys put on outstanding plays which are produced by their own cast with homemade scenery painted by the boys of the paint shop. Costumes are made by the tailoring department; lighting effects are managed by the electrical department; and all music is in charge of the band. When the play is completed, almost every department has had a hand in producing their entertainment.

During the summer a public band concert is given on the campus each Sunday afternoon at

5:45. This is followed by a military drill and dress parade. These concerts are attended by visitors from all parts of the state.

The entire purpose and program of our school is to receive wayward boys, who are committed to us by a court of record of the State, and correct insofar as is humanly possible, their physical, mental, and moral defects so that we may send them back to their home communities as useful citizens.

Our records show that we succeed in accomplishing this; 85 per cent of the boys make good, substantial, useful citizens. This shows that "Nobody knows what a boy is worth."

#### Discussion

**Dr. Andrew W. Bennett, Iowa City:** Early in my life I made a diligent effort not to become too familiar with the type of life which Dr. Gray has been discussing. Just why I was successful, I am not sure; sometimes I wonder.

Dr. Gray has presented a very graphic description of the work that is being done at the Iowa Training School for Boys at Eldora. Having known Dr. Gray, both as a roommate at college and as a fellow intern later, I think that I know something of his sincerity and the devotion and efficiency he has put into his sixteen years of work in this respect. I am also certain that each of the boys for whom he has labored has aroused a deep and personal interest in Dr. Gray. The work in which he is engaged requires a man of Dr. Gray's type, a physician with resourcefulness and a keen understanding of both boys and men.

With all due respect to his work and his success, which we acknowledge, I wonder if the medical adviser of such an institution should not have the assistance of a psychiatrist, a man who has had the additional training along these lines necessary to analyze and inquire into the factors which have caused these boys to be placed in this institution. It would seem that such would give information which would facilitate in the rehabilitation of these boys. I am not intending this as a criticism, Dr. Gray, but only as a suggestion.

I wish to congratulate Dr. Gray on his excellent paper and report, and I certainly hope to accept his invitation at some future time.

**Dr. Fern N. Cole, Iowa Falls:** I wish, also, to congratulate Dr. Gray on his valuable paper. The same thing impressed me that Dr. Bennett mentioned, a necessity for some psychiatric studies of these boys.

I wonder if any mental tests have been made, any attempt to see what the status of these boys is as compared with the status of an equal number of boys of the general population. We cannot help but feel that possibly they are a little below par.

I should also like to inquire whether Dr. Gray believes these boys whom he has seen during these sixteen years compare favorably or unfavorably

with boys of similar age whom he has seen in his private practice. There, again, we cannot help but feel that probably these boys are a little below the standard; however, we may be wrong.

I wish again to congratulate the Doctor on his excellent paper and the work he has been doing. It has required much patience and hard work.

### THE FINLEY HOSPITAL CLINICO-PATHOLOGIC CONFERENCES

#### BILATERAL INTRACRANIAL ANEURYSMS WITH SUBARACHNOID HEMORRHAGE

HOWARD E. THOMPSON, M.D.  
Dubuque, Iowa

Until within the last few years aneurysms of the circle of Willis were of interest mainly to the pathologist. Since Dandy<sup>1</sup> and <sup>2</sup> demonstrated that some of these lesions were amenable to surgical treatment, they have become of greater interest to clinicians because obviously the percentage of cures will be increased by more accurate and earlier diagnosis. In the past comparatively little was known of the clinical features of these lesions, but gradually our knowledge is increasing and this in turn is leading to more frequent correct diagnoses. Therefore, the following case is of some interest because it had been studied for some time before death occurred. It illustrates the difficulties of determining an exact diagnosis in these cases.

#### CASE REPORT

**Chief Complaint:** The patient, a white woman fifty-nine years of age, was first seen March 27, 1943, when her chief complaints were loss of vision and headaches.

**Family History:** Irrelevant.

**Past History:** The patient had had a goiter operation in 1934 and another in 1935. Her basal metabolic rate six months prior to her present illness (August, 1942) was -9. She had been known to have hypertension and in October, 1942, the blood pressure was 180/120.

**Present Illness:** The patient stated that she had been able to do needlework until June, 1942, but at that time had noted failing vision and since had had several changes of glasses. She also had headaches which were most severe at night and frequently awakened her.

**Physical Examination:** Aside from the signs of aging, the general examination was not notable. Locally, the intra-ocular tension was normal. The pupillary reactions were also normal. The fundi



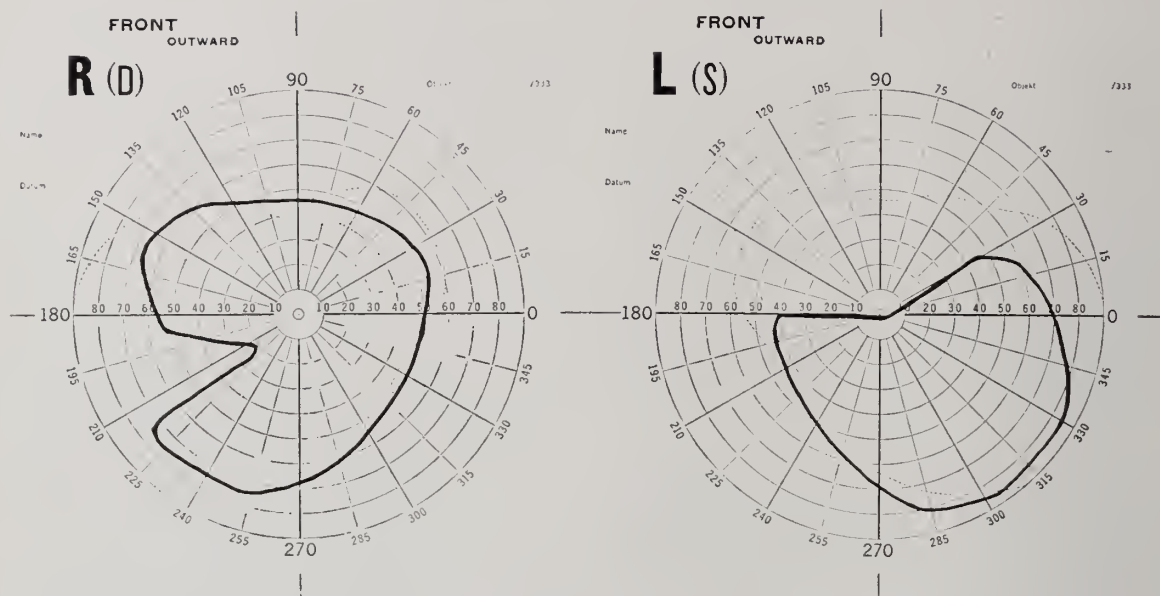


Fig. 1. Fields of vision in the right and left eyes.

showed slight fuzziness of both nerve heads. The vessels of the fundi showed some arteriosclerosis. The vision was 20/200 in each eye and the close vision was of the type one-half inch deep. The general blood examination and the blood chemistry studies were within normal limits. A serologic test was negative. X-ray films of the sinuses, sella turcica, orbits, and optic foramen were all within normal limits. One week later, the fields of vision in the left eye showed a nearly complete superior hemianopia; the right eye showed a large triangular defect in the right inferior quadrant (Figure 1). There were numerous scotomata in both eyes.

*Provisional Diagnosis:* Question of meningioma.

The patient was referred to the Mayo Clinic two weeks later. The Clinic reported visual acuity of 6-60 right and 4-60 left. The visual fields showed irregular contractions of the superior field in the left eye and of the inferior field in the right eye. Ophthalmoscopic examinations showed changes of the retinal arteries indicative of hypertension. The x-ray studies showed no disturbance about the chiasm or other abnormalities of the skull. The diagnosis of the Clinic was bilateral optic nerve lesions which in its opinion could be attributed entirely to vascular accidents along the vessel pathways. Among other conditions, arachnoiditis had been considered. In the opinion of the Neurologic Department, her condition would not respond to surgery.

In June, 1943, she was referred to the Neurologic Department of Passavant Hospital, Chicago. There the neurologic examination revealed a slight drooping of both upper lids. On showing the teeth, the left side of the face moved a little bet-

ter. There was a slight defect of the external motion of the left eye. There was no nystagmus. There was very slight unsteadiness of the right upper extremity on pointing to the left. She could not approximate the fingertips of the right hand as well as the left. Otherwise there were no critical disturbances in the upper extremity. The tibialis phenomena were normal. The left knee jerk was diminished. The ulnar and bicep reflexes were normal as were the plantar and abdominal reflexes. There was no objective sensory loss to touch, pain, vibration, or joint sense, no astereognosis, and no cerebellar sign. The left optic disk was somewhat elevated and the margin slightly blurred. Manometric study of the spinal fluid showed no increase in pressure; the globulin, albumin, and cells were not increased. The Wassermann and Lange tests were both negative. An x-ray examination of the skull revealed a shallow sella. There was slight posterior displacement of the posterior clinoid; no change in the orbit or the optic foramina. One abnormality noted was a platybasia. Ordinarily when this produces neurologic symptoms, they are related to structures in the posterior fossa such as the cerebellum, below the brain stem, but these symptoms were not found. In the left eye there was a superior hemianopia and in the right inferior quadrantic hemianopia. The opinion of a consulting ophthalmologist was that there was a lesion behind the orbit and in front of the geniculate bodies. In the opinion of the neurologist, there was a perichiasmal lesion, the exact nature of which was undetermined. It was not at all similar to that which is found in a degenerative disease such as multiple

sclerosis. Exploration of the optic commissure was recommended.

*Subsequent Course:* The patient had no other symptoms and no change in her vision, but she died suddenly while at dinner seven months after her first visit.

#### NECROPSY REPORT

The necropsy was limited to the head. On opening the dura the bones of the skull were of normal thickness. On removing the calvarium the dura was tense and on incising the spinal fluid was grossly bloody. A large accumulation of blood and blood clots was found at the base of the brain.

On removing the brain two aneurysms were readily demonstrated. One measuring 1.5 centimeters in diameter was located just anterior to the circle of Willis and superior to the right of the nerve. When studied later this was found to be the source of the hemorrhage, since a ragged, narrow slit was found on the under surface. This aneurysm had arisen from the right anterior cerebral artery. A second aneurysm 1 centimeter in diameter arose from the left side of the circle of Willis proper (Figure 2).

The smaller aneurysm showed no arteriosclerosis but the larger one had a patch on one side.

The other cerebral arteries showed a few localized patches of arteriosclerosis. There was no hemorrhage into the substance of the brain.

Microscopic studies showed mild arteriosclerosis of the main arteries. The aneurysm walls were devoid of elastic tissue and seemed to be entirely composed of connective tissue. There was no indication of an inflammatory reaction.

#### GENERAL DISCUSSION

*Incidence:* Martland<sup>3</sup> found 39 proved instances of aneurysm of the cerebral vessels among 54 cases of subarachnoid hemorrhage. These were encountered in a series of 10,000 necropsies, 2,500 of which were instances of sudden or unexplained death. Thus, one out of 63 deaths in the latter group was due to cerebral aneurysm. He concluded that nearly all cases of fatal subarachnoid hemorrhage are caused by rupture of an intracranial aneurysm. Magner<sup>4</sup> has also cited statistics of several workers as follows: Pitt found 23 in 9,000 necropsies; Conway, 43 in 6,325; Fearnside, 55 in 5,432; Osler, 12 in 800; Sossman, 8 in 581; Szekely, 157 in 11,500; and Turnbull, 40 in 500. This made a total of 338 instances in 38,638 necropsies, an incidence of 0.87 per cent. McDonald and Korb<sup>5 and 6</sup> made a review of 407 articles which had been published between 1761 and 1938 and assembled 1,125 cases of intracranial aneurysm verified at operation or at necropsy. They stated that Gull of Guy's Hospital in a report of 6 cases in 1859 made the following statement: "Whenever young persons die with symptoms of ingravescent apoplexy and after death a large effusion of blood is found, especially if the effusion be over the surface of the brain in the meshes of the pia mater, the presence of an aneurysm is probable."

Matas,<sup>7</sup> in an excellent review of the subject, stated that clinically McKinney, Acree and Stoltz estimated that one out of 700 patients with organic nerve disease admitted to the Neurologic Institute of New York had intracranial aneurysm. He also stated that in 1928 Dandy had estimated the incidence of intracranial aneurysms in a large neurologic center at 0.5 to 1 per cent of brain tumors. Matas pointed out that because of the constant expansion and aggressiveness of brain surgery, the number and variety of intracranial aneurysms unsuspected clinically which are brought to light at operation or by improved diagnostic procedures are increasing rapidly.

*Age and Sex:* In their analysis McDonald and Korb found 574 females and 519 males. They stated that aneurysms were found at all ages: the youngest of the 545 patients whose age had been recorded was one and one-half years; the oldest

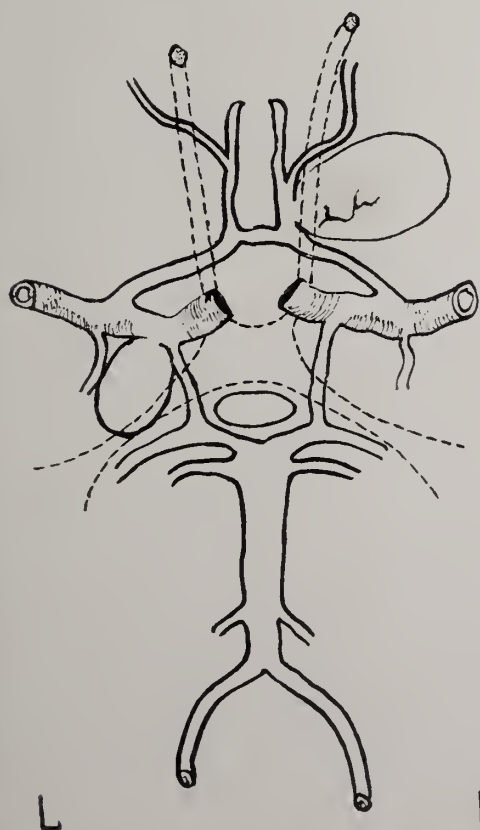


Fig. 2. Diagrammatic sketch of the circle of Willis showing the location of the aneurysms. The optic chiasm and nerves appear as dotted lines.



eighty-seven. Fifty-four per cent were over forty years of age and 35 per cent were twenty-one to forty. Only 11 per cent were under twenty, which is somewhat at variance with common clinical belief.

*Artery Involved:* While any of the intracranial arteries may be involved, according to their analysis, 489, or 48 per cent, of the aneurysms were located on the internal carotid or the middle cerebral artery; 156, or 15 per cent, on the anterior or communicating artery; and only 286, or 28 per cent, posterior to the internal carotid arteries.

*Etiology:* Eppinger<sup>8</sup> in 1887 attributed the formation of cerebral aneurysms to an innate weakness in the structure of the arteries at their points of junction and bifurcation. He suggested that a congenital defect in the elastic properties of the arterial wall might lead directly to aneurysm formation or aneurysm might result from the addition of atheromatous degeneration to an already congenital weak point in the vessel wall. Forbus<sup>9</sup> in histologic studies demonstrated a medial defect at many bifurcations where there was no muscular coat though the intima, the elastica and adventitia remaining intact. He found similar defects in the mesenteric and coronary arteries where they branched at acute angles. Bremer,<sup>10</sup> pointing out that there was some doubt as to the occurrence of the actually congenital aneurysms and that some writers considered all aneurysms pathologic, made studies upon the development of the cerebral arteries and plexuses in pig and human embryos and concluded that true congenital aneurysms occurred in two ways. Since the hemispheres of the brain develop rapidly in fetal life, the forks of the cerebral arteries are spread, and if these forks lack the media the rapid spread may produce an aneurysm. The second method results from the degeneration of distal cerebral arterial plexuses while the proximal portions enlarge and form aneurysmal pouches off the main vessels. His illustration of the occurrence of the latter type in a 45 millimeter human embryo is convincing. It would seem, therefore, that most of these aneurysms are congenital. Many of them probably remain silent until secondary changes such as arteriosclerosis cause symptoms. Syphilis apparently plays little part in their formation and mycotic aneurysms are only incidental to the primary disease, endocarditis. Dandy believes 15 per cent are due to arteriosclerosis.

*Diagnosis:* Matas indicated the diagnostic hazards as follows: "The difficulties in the way of correct diagnosis and localization of the intracranial arterial aneurysms of the circle of Willis are easily appreciated when we consider their small size, their insidious and silent development and

early rupture. But even when they have attained sufficient size to cause definite signs and disabling symptoms, their clinical physiognomy only too frequently escapes detection even under the eyes of the most expert observers." He goes on: "On the other hand diagnosis is not so difficult when the aneurysm is large enough to cause pressure signs or 'neighborhood complaints' such as result from those developing in the anterior and middle fossae where they involve the cranial nerves—the optic and olfactory in the middle fossa, and the third to sixth as they enter the cavernous sinus to supply the eye and orbit. Thus ptosis, dilated pupil, fixed- or squint-eye with ocular and orbital radiations of pain may follow involvement of the third, fourth, fifth and sixth cranial nerves. Usually there is little change in vision or in the eye grounds. The diagnoses of aneurysms and their localization are made much more apparent among those who survive the leakage or rupture of an intracranial aneurysm. Bleeding from small leaks tends to form a false aneurysm, much larger than the original one and thus aggravates the symptoms. The blood stained cerebrospinal fluid or an xanthochromic tinge when the hemorrhage stops and the patient survives gives convincing proof of the rupture." For a more complete discussion of the diagnosis and the differential diagnosis the reader is referred to the original article by Matas.

In general, evidence furnished by roentgenograms was disappointing in the diagnosis of cerebral aneurysms. Moniz of Portugal, according to Matas, was the first to utilize the injection of radiopaque solutions into the carotid circuit and it has resulted in notable progress in the diagnosis of intracranial aneurysms and of all vascular tumors of the brain. In this procedure thorotrast was used but because of possible cancerigenic tendencies Gross has suggested the use of diodrast. Apparently this procedure is most valuable and, while liable to errors of technic, should be utilized whenever aneurysm is suspected.

*Treatment:* In the past, extracranial ligation of the carotid artery was utilized with variable degrees of success. In the last decade the intracranial ligation of the internal carotid artery has been successful in the treatment of pulsating exophthalmos. In 1938 Dandy first ligated a pure arterial aneurysm of the circle of Willis. Probably the latter procedure will be more widely utilized in neurosurgical clinics where angiography will result in the early detection and localization of the aneurysms, thus enhancing the possibility of surgical cure.

#### REFERENCES

1. Dandy, Walter E.: Intracranial aneurysm of internal carotid artery. *Ann. Surg.*, cvii:654-659 (May) 1938.
2. Dandy, Walter E.: Surgical treatment of intracranial aneu-

rysms of internal carotid artery. *Ann. Surg.*, cxiv:336-340 (September) 1941.

3. Martland, Harrison S.: Spontaneous subarachnoid hemorrhage and congenital "berry" aneurysms of circle of Willis. *Am. Jour. Surg.*, xliii:10-19 (January) 1939.

4. Magner, William: Multiple intracranial aneurysms. *Canad. Med. Assn. Jour.*, xxxiii:401-403 (October) 1935.

5. McDonald, Charles A., and Korb, Milton: Intracranial aneurysms. *Arch. Neurol. and Psychiat.*, xlii:298-323 (April) 1939.

6. McDonald, Charles A., and Korb, Milton: Circle of Willis, its angles and its aneurysms. *Rhode Island Med. Jour.*, xxiii:145-149 (September) 1940.

7. Matas, Rudolph: Aneurysms of circle of Willis. *Ann. Surg.*, cvii:660-680 (May) 1938.

8. Eppinger, H.: Histiogenesis and aetiology der aneurysmen ungeschlüsselt des aneurysma equi verminosum. *Arch. f. klin. Chir.*, Suppl. 1. xxxv:1-563 (January) 1887.

9. Forbus, Wiley D.: On the origin of miliary aneurysms of the superficial cerebral arteries. *Bull. Johns Hopkins Hosp.*, xlvii:239-284 (November) 1930.

10. Bremer, J. L.: Congenital aneurysms of the cerebral arteries; an embryologic study. *Arch. Path.*, xxxv:819-831 (June) 1943.

## AMERICAN COLLEGE OF SURGEONS TO HOLD WAR SESSION IN DES MOINES MARCH 4

A War Session will be conducted by the American College of Surgeons in Des Moines, with headquarters at Hotel Fort Des Moines, on Saturday, March 4. Dr. Oliver J. Fay is chairman of the Committee on Local Arrangements and will preside at the morning sessions, which will open at 8:30 a. m. in the Grand Ballroom with military motion pictures showing activities of the medical department of the United States Army in theaters of operation; medical activities and installations of the United States Navy in the South Pacific; and the medical department of the United States Navy in amphibious assault. From 9:30 until 11:30 a. m., experiences in the theaters of operation will be discussed by Major Boardman M. Bosworth, Medical Corps, United States Army, Washington, and Captain Frederick A. Jostes, Medical Corps, United States Navy, Great Lakes, Illinois. From 11:30 to Noon, wartime problems in communicable disease control will be discussed by Dr. Thomas B. McKneely, Surgeon, United States Public Health Service, Washington; Chief of Emergency Medical Section.

Dr. Prince E. Sawyer of Sioux City will preside at the luncheon for physicians, surgeons, and hospital representatives, at which Dr. Charles M. Wilhelmj of Omaha, Dean of Creighton University School of Medicine, will discuss current problems in relation to the accelerated program for pre-medical and medical education, and Dr. Roy W. Fouts of Omaha, Chairman, Procurement and Assignment Service, Seventh Service Command, will discuss current problems in medical manpower for the armed forces, hospitals, and the civilian population.

Dr. William L. Shearer of Omaha will preside at the afternoon session, at which the following program will be presented:

War Wounds of the Extremities: Colonel Grover C. Penberthy, Medical Corps, U. S. Army, Omaha; Surgical Consultant, Seventh Service Command.

Navy War Surgery: Captain Frederick A. Jostes, Medical Corps, U. S. Navy, Great Lakes.

Expansion of the Program of Graduate Training in

Surgery and the Surgical Specialties by the American College of Surgeons: Malcolm T. MacEachern, M.D., Chicago, Associate Director, American College of Surgeons.

The Current and Postwar Program of the Veterans Administration: Arthur W. Schulz, M.D., Des Moines; Chief Medical Officer, U. S. Veterans Administration.

Emergency Medical Service in Wartime Disasters: Thomas B. McKneely, M.D., Surgeon, U. S. Public Health Service, Washington; Chief of the Hospital Section, Office of Civilian Defense.

Medical Service in Industry: Frederick W. Slobe, M.D., Chicago; President-Elect, American Association of Industrial Physicians and Surgeons.

Dr. Walter L. Bierring of Des Moines, Commissioner of Public Health for Iowa, will be the moderator at the dinner-forum session for physicians, surgeons, and hospital representatives beginning at 6:15 p. m. All speakers on the programs for the medical profession and the hospital conferences, which will be held concurrently with the medical sessions in the morning and afternoon, will serve on the Panel of Experts. There will be discussion of any and all subjects presented during the day, together with related topics of interest to the medical, hospital, and other groups attending the War Session.

Members of the profession at large, both in military and civilian service, medical students, and hospital personnel, of Iowa, Eastern Nebraska, and Missouri, are invited to attend the War Session.

## STATE MENTAL HYGIENE COMMITTEE TO BE ESTABLISHED

Plans are being made for the formation of a state-wide Mental Hygiene Committee, patterned after that formed in twenty-six other states, and tied in with the National Committee for Mental Hygiene, for the purposes of (1) public education in mental health; (2) understanding of Iowa's program for child and family welfare and state institutions; and (3) helping to prevent nervous and mental disorders and mental defects. There is need in the state for such a program dealing with the problems of war and the coming postwar period.

Some informal discussions and committee meetings have been held to set up a Constitution and plan of organization for the State Committee. It is planned that the first annual meeting will be held in Des Moines in April.

## THE CHICAGO MEDICAL SOCIETY'S ANNUAL CLINICAL CONFERENCE

Stevens Hotel, Chicago

March 14, 15, 16, and 17

Daily Scientific Programs . . . Scientific and Commercial Exhibits. Make hotel reservations early.



# STATE DEPARTMENT OF HEALTH

*Walter L. Biering*

## ADDITION TO RULES AND REGULATIONS

At its semi-annual meeting on Tuesday, January 11, 1944, the State Board of Health, advisory body to the State Department of Health, took action to include as part of the Rules and Regulations (1943), a table which sets forth the minimum period of isolation for the common communicable diseases and procedure with reference to placarding of premises.

### MINIMUM PERIOD OF ISOLATION; PLACARDING

The accompanying table specifies the minimum period of isolation and the practice relative to placarding of diseases as listed.

## REPORTED INCIDENCE OF NINE DISEASES—1943

The following table shows the total of reported cases in 1943 for certain diseases, and for comparison the "expected" number, based on a nine-year average for the period 1933-1942.

Disease	Tri-Central Median 1934-1942	Total Reports 1943
Diphtheria	257	156
Measles	5,010	5,903
Meningitis	31	88
Pneumonia	828 (1935-1943)	641
Poliomyelitis	70	204
Scarlet fever	3,298	2,483
Smallpox	449	26
Typhoid fever	108	43
Whooping cough	1,182	1,702

Diseases which were unduly prevalent in 1943

Summary of Rules Pertaining to the Minimum Period of Isolation and to Placarding for Certain Communicable Diseases

Disease	Isolation Period for Patient	Placarding of Homes
Diphtheria	Minimum 16 days from onset and until 2 negative cultures	Yes until released from isolation
Measles	Minimum until 5 days after appearance of rash	Yes for isolation period (May institute by mail)
Meningitis	Minimum 14 days from onset	Yes until 14th day after onset
Poliomyelitis	Minimum 14 days from onset of prodromal symptoms	Yes until 14th day after onset
Scarlet Fever	Minimum 21 days from onset	Yes until 21st day after onset
Smallpox	Minimum 14 days from onset	Yes until 14th day after onset
Typhoid Fever	Until 2 successive stool specimens prove negative	Yes while communicable
Whooping Cough	Minimum 21 days from onset of "whoop"	Yes until 21st day of "whoop" (May institute by mail)
Chickenpox	Minimum 10 days from onset	Yes when practicable (May institute by mail)
Mumps	Minimum 14 days	Yes when practicable (May institute by mail)
German Measles	Minimum 5 days	No

The minimum duration of isolation is based on the "Period of Communicability," considered under Section 6 for each disease, in the body of Rules and Regulations. The Table as appended to Rules and Regulations, includes also the "Incubation Period," the "Period of Communicability," and procedure affecting "Quarantine of Home Contacts."

include measles, meningococcus meningitis, poliomyelitis, and whooping cough.

## BRUCELLOSIS IN RURAL AND URBAN AREAS

Case reports and data supplied by Iowa physicians for the five-year period, 1939-1943, have been arranged according to residence in rural and urban areas and morbidity rates calculated per

BRUCELLOSIS IN IOWA  
1939-1943Number of Cases and Rates Per 100,000 Population  
(Based on Case Reports Completed by Iowa Physicians)

YEAR	RURAL AREAS				URBAN AREAS					STATE TOTALS	
	FARM GROUP <sup>(a)</sup>		CITIES, TOWNS UNDER 2,500 <sup>(b)</sup>		CITIES OVER 2,500 <sup>(d)</sup>						
	FARM RESIDENTS		ALL OTHERS		PACKING HOUSE WORKERS			ALL OTHERS		ALL CASES	
NO.	RATE PER 100 M	NO.	RATE PER 100M	NO.	RATE PER 100 M <sup>(d)</sup>	SPEC. MORBID. RATE <sup>(e)</sup>	NO.	RATE PER 100 M <sup>(d)</sup>	NO.	RATE PER 100 M <sup>(a)</sup>	
1939	80	8.7	37	6.9	19	1.8	95.0	37	3.4	173	6.8
1940	107	11.7	39	7.3	67	6.2	335.0	48	4.4	261	10.3
1941	135	14.7	37	6.9	35	3.2	175.0	59	5.4	266	10.5
1942	150	15.5	53	9.9	62	5.7	310.0	65	6.0	330	13.0
1943	181	19.7	68	12.7	54	5.0	270.0	45	4.2	348	13.7
Totals	653		234		237			254		1,378	

(a) 916,768 rural, farm population—Census, 1940

(b) 537,269 rural non-farm population—Census, 1940

(c) 20,000 packing house workers (estimated total)

(d) 1,084,231 urban population—Census, 1940

(e) 2,538,268, total population—Census, 1940

100,000 population, special attention being given to farm residents and, in cities, to the group of packing house workers. The results appear in the accompanying table.

In the farm group, an increase in reported cases occurred, from 80 in 1939 to 181, more than double the number, in 1943. A similar progressive increase in reported incidence characterizes the reports of cases from cities and towns under 2,500.

In urban areas, the striking thing revealed by

the figures in the table is the high incidence of the disease in packing house employees as compared with all other persons.

Stepped-up production of livestock, with attendant increase in the hazard of exposure by direct contact, and use of unpasteurized milk supplies are probably important factors to account for the marked increase in the prevalence of brucellosis in recent years.

## PREVALENCE OF DISEASE

Disease	Jan. '44	Dec. '43	Jan. '43	Most Cases Reported From
Diphtheria .....	22	1	22	Cass, Franklin
Scarlet Fever .....	389	352	243	For the State
Typhoid Fever .....	3	2	3	Boone, Davis, Sac
Smallpox .....	2	4	3	Dubuque, Pottawattamie
Measles .....	521	140	287	Dubuque, Allamakee, Marshall
Whooping Cough .....	144	97	91	Dallas, Linn, Washington,
				Woodbury
Brucellosis .....	24	35	41	For the State
Chickenpox .....	261	520	417	For the State
German Measles .....	12	71	98	Osceola
Influenza .....	7,462	22,659	17	For the State
Malaria .....	0	0	0	None
Meningitis .....	8	12	0	For the State
Mumps .....	83	65	332	Black Hawk, Dubuque
Pneumonia .....	270	129	147	For the State
Poliomylitis .....	0	2	2	None
Tuberculosis .....	401*	54	96	For the State
Gonorrhea .....	141	122	121	For the State
Syphilis .....	212	184	258	For the State

\*337 are delayed reports affecting Selective Service personnel, 1942-1943.



# The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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## ANNUAL SESSION APRIL 20 AND 21

This issue of the JOURNAL carries the program for the forthcoming Ninety-third Annual Session of the Iowa State Medical Society. At this time we merely want to draw your attention to the time of the meeting and to the program. We hope everyone who can will immediately draw a circle around the meeting dates on his calendar of appointments and will resolve to let nothing interfere with coming to Des Moines for what should be one of our most outstanding medical meetings. Regardless of the strain under which civilian physicians are working and the difficulties which arise in attempting to get away from one's practice, there can be no argument but that physicians do need to attend medical meetings—not only for a brief period of relaxation but also to learn about the many important medical advances which have been made as usual in both civilian and military practice.

## SUBDURAL HEMATOMA IN INFANCY

Ingraham and Matson present a subject of great importance in the January 1944 issue of the *Journal of Pediatrics*. These authors point out that the symptoms of subdural hematoma occurring in adults are well known, and that the management of such cases is on a uniform basis, with a voluminous literature available to those interested. Subdural hematoma in infancy, on the other hand, although of common occurrence, has received relatively little attention and only a small amount of information has been recorded in the literature concerning its management.

Dr. Ingraham is the neurosurgeon at the Children's Hospital in Boston and Dr. Matson is

a fellow in neurosurgery at the same institution. Their report deals with ninety-eight cases of subdural hematoma observed at the Children's Hospital since 1937, all of them treated on the neurological service according to a uniform plan. Results obtained are so striking that obstetricians, general practitioners, and pediatricians alike have a worthwhile incentive and grave responsibility in recognizing, or at least suspecting, these cases and steering the patient into competent hands for surgical management. A large proportion of the children with such conditions which are unrecognized and untreated become mentally deficient as a result of brain damage from the hematoma.

In over half of the cases reported in the authors' series a definite history of trauma was obtained as the etiologic explanation. Twenty-eight patients were known to have suffered birth trauma, and a nearly equal number gave a history of postnatal trauma to the head. It is altogether likely that trauma was the etiologic factor in the majority of the remainder, although no clear-cut history was obtainable.

It is interesting and important to note that there is no characteristic clinical picture of subdural hematoma in infancy. Any infant who fails to do well and has such general symptoms as failure to gain, vomiting, fever, irritability, as well as symptoms more definitely referable to the central nervous system such as convulsions, focal paralysis, headache, and coma, should come under suspicion, at least, of having a subdural hematoma. Nor are there characteristic clinical findings; in the majority of the infants there was elevation of temperature, but others ran a subnormal temperature. Over half the patients had hyperactive reflexes; and in nearly a third the fontanels were bulging. Abnormalities of the fundi were found in only twenty-one children, the most common lesion being numerous small retinal hemorrhages. Papilledema was not a frequent finding. Paralysis occurred in only fifteen of the patients. A fractured skull was noted eleven times.

The authors stress the point that diagnosis of subdural hematoma can be established by puncture of the subdural space and by this procedure alone. X-ray examination of the skull, encephalography, and ventriculography are seldom of diagnostic help. Treatment consists of frequent subdural taps for two or three weeks during which time other supportive treatment, such as transfusions, is carried out. When the physical status is suitable, bilateral burr holes are made through which the clot may be irrigated and washed out as much as possible. The third step,

when indicated, is the removal of this membranous clot following craniotomy. The operative mortality rate in the authors' series was 5.3 per cent.

Fifty-seven of the ninety-eight patients have been adequately followed for periods of from six months to five years. Twenty-three per cent are retarded or grossly deficient while 77 per cent are not only asymptomatic but show normal behavior for their age.

Obviously not all infants who suffer a cerebral hemorrhage are suitable for the therapeutic procedure outlined above, since in many the hemorrhage will be subtentorial instead of subdural. It must not be assumed, therefore, that cerebral spasticity resulting from birth hemorrhage can be entirely eliminated. Nevertheless, the experience reported from the Children's Hospital in Boston does indicate that much more can be done than is generally being done at present to reduce the number of children who become mentally defective as the result of traumatic subdural hematoma.

#### PENICILLIN EFFECTIVE IN GAS GANGRENE

While ample opportunities have occurred for observation of the effectiveness of penicillin in staphylococcic, streptococcic, gonococcic, and meningococcic infections, nothing has appeared in the literature concerning its use in gas gangrene with the exception that it has been mentioned that experimentally penicillin is a potent agent in gas bacillus infections. It is of interest, therefore, to note that McKnight, Loewenberg, and Wright<sup>1</sup> have successfully treated a case of gas gangrene with penicillin. Hence, one more of the serious infections to which the human being is subject now seems to have found a master.

The case reported by the authors was that of a girl seven years of age who suffered a compound fracture of her left forearm. In spite of heroic measures with the usual armamentarium available, including sulfonamides, antitoxin, x-ray therapy, and surgical drainage, it became necessary to amputate the child's arm. Even then the condition of the child failed to improve. Penicillin therapy was begun on the seventh day after the accident; in all, 240,000 units was administered. During the ensuing week the temperature gradually dropped below 100 degrees and the wound became healed. Complete recovery eventually occurred.

1. McKnight, W. B., Loewenberg, R. D., and Wright, V. L.: Penicillin in gas gangrene; report of a successfully treated case. *Jour. Am. Med. Assn.*, cxxiv:360 (February 5) 1944.

#### MEETING OF THE MEDICAL SERVICE PLANS COUNCIL OF AMERICA

The Medical Service Plans Council of America met in the Palmer House in Chicago Saturday, February 12. There were approximately 100 persons present to hear a program which started with a talk by Mr. Jay C. Ketchum of Michigan Medical Service. Mr. Ketchum discussed the rôle of medical service plans as opposed to the Wagner-Murray-Dingell Bill. Due to circumstances beyond our control, we did not arrive in time to hear his presentation.

The second paper of the morning was presented by Mr. John M. Pratt of the National Physicians Committee, and it contained several figures which will be of interest to the medical profession. Mr. Pratt said the NPC was conducting a poll of twenty-five million persons, one of the largest ever attempted, and that the results would be available in about a month. However, a pilot survey made between July 1 and September 10, 1943, showed that 51 per cent of persons questioned favored government insurance for medical and hospital care with an increase of Social Security rates to 6 per cent; 30 per cent disapproved; and 19 per cent did not know. However, a similar question asked between September 10 and December 31, 1943, showed that in that period of time the answers changed so that on December 31 only 32 per cent approved; 42 per cent disapproved; and 26 per cent had no opinion. When it was pointed out to these persons that such a program would mean a 6 per cent tax on salary, the 32 per cent approving dropped to 16 per cent, with 53 per cent disapproving, and 31 per cent with no opinion. This may reflect the educational work carried on last fall by the medical profession, NPC, and allied groups. The poll also showed that 68 per cent of the people said some way must be provided to pay the costs of unusual illnesses, while only 5 per cent had any concern with the normal doctor bill.

Mr. Pratt gave facts and figures on health and accident insurance business, saying that in 1941 the stock and mutual insurance companies did a business of 196 million dollars, and in 1942 this increased to 358 million dollars. Thus there has been a tremendous increase in voluntary insurance coverage.

Dr. C. Rufus Rorem, Director of the Hospital Service Plans Commission, spoke during the noon luncheon, and he was followed by Dr. Ira H. Lockwood, of Surgical Care, Inc., of Kansas City, who discussed the relationship of hospital and medical service plans. Dr. Lockwood said there were three dangers confronting the medical profession: The Wagner-Murray-Dingell Bill, the



EMIC Program, and some Blue Cross executives who advocate incorporation of medical service in Blue Cross plans. Dr. Rorem and Mr. Ketchum both brought out the fact, however, that hospitals merely took conditions as they found them in making their Blue Cross plans, that when hospitals had in the past offered medical service such as x-ray examination, pathology and anesthesia, they were incorporated in the plan. When medical service plans are started, the Blue Cross plans will relinquish these services to the medical service plan. Dr. Lockwood was somewhat critical of the new Council on Medical Service and Public Relations of the American Medical Association, feeling it had been slow in getting into action, and that its program did not contemplate much action in the near future. Mr. Kelly, new secretary of the Council, explained what had been done in six months and promised real action.

The meeting closed with a discussion of the problems involved in setting up medical service plans, with Mr. Ketchum acting as moderator.

Mr. Ketchum was elected president of the group for the coming year, and Dr. F. L. Feierabend secretary.

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#### NATIONAL CONFERENCE ON MEDICAL SERVICE

The National Conference on Medical Service held its eighteenth annual meeting at the Palmer House in Chicago, Sunday, February 13, with about 250 persons present. Dr. W. L. Burnap of Fergus Falls, Minnesota, president, and Dr. C. L. Palmer of Pittsburgh, secretary, took charge of the meeting, which was opened by a discussion of the Association of American Physicians and Surgeons by Mr. R. W. Waterson, executive secretary of the Lake County Medical Society. Mr. Waterson said the purpose of the association was to organize ethical physicians and surgeons in a group which will determine under what conditions doctors will render service. It provides for expulsion of doctors who do not conform to rules, but there is to be no coercion of non-members. He stated it was formed on a sound legal basis to do what the American Medical Association cannot and will not do, but recognition of the American Medical Association is paramount. He claimed the precepts of the group were based on the Golden Rule.

Dr. Michael Tighe, secretary of the Massachusetts Medical Society, next discussed the proposals of the medical societies of New England. These societies adopted a resolution calling for control of health programs in the states by the

state groups themselves, with supplementary federal grants-in-aid where necessary.

Dr. Dwight H. Murray, chairman, and Mr. Ben Read, executive secretary of the Western Public Health League, explained the background of the group, which includes dentists, pharmacists, and other health groups as well as the medical profession. They pointed out that California had been a guinea pig for medical experiments for twenty-five years, and the League had been formed to keep public health standards elevated. It is non-partisan in thought and action. Recently the California group met with eleven other western states to organize a larger group to meet national problems. Six of those states have formed the Western Public Health League and Mr. Read has been appointed temporary Washington representative and is to open an office there March 15.

Mr. Read said he had spent thirty days in Washington determining the need for a Washington office. He found the general feeling toward the medical profession was good, but there existed a feeling of antagonism to the American Medical Association, a feeling that it is ruthless, opposed to everything, and offering nothing. The allied groups in the healing arts have Washington offices. The cultists are very active. He said the Congressmen to whom he talked urged the medical profession to take the initiative before the politicians do.

Mr. J. W. Holloway discussed recent trends in legislation, explaining the Bardon-LaFollette Bill, the removal of restrictions on use of veterans facilities, the Wagner-Murray-Dingell Bill, and the report of the National Resources Planning Board. He stated that Senator Wagner had ordered 5,000 additional copies of S.1161 printed, which probably means he will not offer a new bill but try to push this one.

Dr. L. H. Bauer of New York, chairman of the Council on Medical Service and Public Relations, spoke for the Council. He said it was anxious to find the answer to the problems affecting the medical profession; and that education of the public, the doctors, and congressional representatives was necessary. This is the responsibility of every member of the American Medical Association, not the Council alone. He said the Council deprecated the tendency toward disunity, as evidenced by the different groups which had preceded him on the program. It was his belief that the American Medical Association was best equipped to carry out a program of further extension of medical service plans, and that the new Council must have the support and full cooperation of every county medical society and every individual physician.

Dr. Walter Judd, Congressman from the Fifth District in Minnesota, spoke on the doctor's job. He said we must diagnose what is wrong even if we don't know the answer, because only by constant diagnosis and study can we ever find a solution. He also said the greatest problem today is relationship with government. He outlined the main problems through the past fifty years, starting with financing, through producing, distribution, and labor problems, until today it is governmental relationships. We need new technics to achieve and hold our objectives. He made the following statements of fact:

1. The medical profession never stood higher in public esteem professionally than it does today.

2. The medical profession, through its ability to send large numbers of men into service, has demonstrated its patriotism and feeling of responsibility toward the war effort. No other group has made such a contribution.

3. The quantity of medical care is inadequate and the distribution is imperfect, and it will not suffice to sell medical services to the highest bidder and dismiss the problem.

4. There are people who see this and are willing to do something about it. They see only those who do not get adequate medical care, instead of those who do. It is not enough to sit back and say that 85 per cent get good care, if 15 per cent do not.

5. The reformers have access to the powers that be and have control of the agencies that have influence and authority.

The medical profession must retain what we know to be sound principles of medical care, such as voluntary relationship of patient and physician, personal and direct relationships, the stimulus to constant growth and attainment which comes from free practice. If we don't lead from the inside, we will be controlled from the outside. We need more adequate presentation of our side of the case. We must experiment and then sell our ideas to the powers that be. We need a two-way information bureau which can pass on information from Washington to the medical profession, and in turn transmit the medical viewpoint to the members of Congress. The physicians in Congress should not be expected to ride herd on medical legislation; they have wider responsibilities than medicine alone. The Wagner-Murray-Dingell Bill probably will not pass this Congress, and this will give the medical profession a breathing spell, but it is our last chance to do something constructive. Our country cannot stand much more abuse. We need better men who will go to Congress as a public duty. We also need a physicians' point of view in government. We need the autopsy point of view, the biopsy point of view.

Doctors have learned to be objective; they set up their ideas and let others knock them down to find the flaws in them. We need this point of view in Congress. Also, doctors learn to think in terms of alternatives, and to take things one at a time and work them out. All of these things would be useful in Congress.

Dr. Judd ended his talk with a remark which he said he was making wherever he spoke, and that was not to write your Congressman but to run for Congressman. He was given a rising vote of appreciation by the audience.

Dr. Morris Fishbein was called upon to address the group, and he listed the order of importance, in his opinion, of the groups on the morning program. He put the Council on Medical Service and Public Relations of the American Medical Association first, the NPC second, the Western Public Health League third, and the Association of American Physicians and Surgeons fourth. He also answered some of the charges made against him and against the American Medical Association in earlier talks.

Dr. Burnap's talk as president dealt with social and economic trends in relation to medical practice; Dr. E. H. Skinner of Kansas City discussed the work done by the NPC against the Wagner-Murray-Dingell Bill, saying fifteen million of the eight page pamphlets and 750,000 of the twenty-eight page pamphlets had been distributed.

Dr. W. A. Coventry of Minnesota presented a resolution to make the National Conference on Medical Service a more permanent organization, and this was passed. The next resolution was one complimenting the new Council on Medical Service and Public Relations and expressing complete confidence in it. This was passed. The last resolution asked the Council to establish a Washington information bureau, with the proviso that if the Council could not do so an effort be made to unify the various other organizations into one group with a Washington office. There was a great deal of discussion of this, but it finally passed.

Dr. C. L. Palmer of Pittsburgh was elected president and Dr. C. A. Nafe of Indianapolis secretary of the National Conference on Medical Service for the coming year.

Dr. W. W. Bauer of Illinois discussed the reaction of various states to the EMIC Program, reviewing the present situation. Dr. Martha Eliot of the Children's Bureau discussed it, saying the county medical societies had called upon the Bureau for help and that was the reason for the establishment of the program. She admitted faults in the program.

The conference closed about six p. m.



## Red Cross Hospital Workers Busy Twenty-four Hours a Day

**NORTH AFRICA**—You take a great ooze of mud, a brown tent, several hundred uncomfortable Americans with battle-broken legs and arms, a scoop of co-operation, and two determined young ladies from the United States, and in no time flat you have American Red Cross hospital recreation in motion.

The two young ladies from the United States had never been inside of an army hospital before they joined the Red Cross. Virginia Hamilton had been teaching physical education in the city schools of Birmingham, Alabama, and Elizabeth Thornton, from Greensboro, North Carolina, had been acting as secretary to Bishop Tucker of Cleveland, Ohio.

When they landed at Oran, North Africa, with an army station hospital unit, the day after Christmas, 1942, they began to see that an army hospital could take on various guises. The hospital was at first parked in a village on the Mediterranean. Very pleasant, thought the girls. It soon moved to its present location near the Tunisian border which, in February, was "just a mud hole," Elizabeth Thornton said. At first they lived in old French army barracks with no stoves. It was cold, and the French buglers (the spot was still being used as a French garrison) sounded off every fifteen minutes. Tents were soon erected and the girls, with all the nurses and men, took to camp life. Casualties were pouring in from the Kasserine Pass action, and the hospital was acting as an evacuation unit. It was the first hospital that near the lines to have Red Cross girls. The mud was so deep that all the patients had to be kept in bed. All day long the girls lugged heavy baskets from ward to ward, leaving playing cards here, stopping to write a letter there, playing checkers at a cotside further on. At night they fell into bed so tired they didn't even take off their clothes. But the morale of the whole hospital was at top peak in those days, Miss Thornton reports, adding that "the nurses were magnificent."

By Easter the hospital had settled to a "station" existence. The girls sent scouts out to buy up eggs from all over the countryside. At midnight the Saturday before Easter they were still up to their elbows in dye and a talented soldier was decorating each colored egg with pen and ink sketches. Sunday morning brought an Easter egg to each patient's breakfast tray and a bouquet of spring flowers to each ward. Bomb shells were used for vases. The flowers made such a hit with the men, Virginia Hamilton recalls, that from then on they kept flowers in

the postoperative and neuropsychiatric wards all spring.

One Saturday afternoon hospital attendants dropped their chores to stare in amazement at the two Red Cross girls, demure in their grey dresses, calmly shepherding a platoon of prisoner patients into their Red Cross recreation tent. The chaplain had started a popular weekly event, known as "Music You Like to Hear," a program of classical records. He preceded his opera afternoons by telling the story of the opera in the men's own language. Seventy-five of them sat, spellbound, one Saturday through the entire score of *Aida*. Often patients would come to him asking for a repetition of some concerto they had heard for the first time at his music hour. The German prisoner patients were so eager for music

that the girls had asked the commanding officer's permission to bring them over for this one event. He gave his permission on the understanding that the girls would take responsibility for the prisoners, resulting in the spectacle of two small figures in skirts marching a gang of prisoners through the hospital area.

The Hamilton-Thornton team keeps its ears flapping and when any sort of army show hits the neighborhood they are on the spot to book the show for their hospital.

This hospital recreation program, however important, is only one aspect of the world-wide service being maintained by the American Red Cross for the benefit

of our armed forces. Thousands of Red Cross workers now overseas are serving in the more than three hundred American Red Cross clubs, rest homes and recreation centers, as well as in hospitals. American Red Cross field directors are by the side of our fighting men wherever they go, even up to front lines.

These and all other vital wartime projects of the American Red Cross—enrollment of nurses for the armed forces; procurement of blood donations; preparation of surgical dressings; aid to prisoners of war; medical social service to hospitalized servicemen and home service counsel and assistance to their families—are part of the world-wide service being rendered to our armed forces by the American Red Cross.

Continuation of these, as well as the many American Red Cross services to the home front, depends upon the support given the 1944 Red Cross War Fund appeal. To maintain its program in 1944 the American Red Cross must raise, during March, a War Fund of \$200,000,000. Let's give!



**Your RED CROSS is at his side**

# Roster of Iowa Physicians in Military Service

As of February 23, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (Camp Maxey, Tex.) ..... Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.) ..... A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Trenton, N. J.) ..... Capt., A.U.S.  
Huston, M. D., Centerville (Kansas City, Mo.) Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 726, Seattle, Wash.) ..... Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (Camp Howze, Texas) ..... 1st Lt., A.U.S.  
Bickley, J. W., Waterloo (Fort Sill, Okla.) ..... 1st Lt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas) ..... Lt. Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Ottumwa, Iowa) Lt. Comdr., U.S.N.R.  
Ellyson, C. D., Waterloo (Lido Beach, N. Y.) ..... Lt., U.S.N.R.  
Erickson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.) Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (McClellan Field, Ala.) 1st Lt., A.U.S.  
Ludwick, A. L., Waterloo (APO 513, New York, N. Y.) ..... Capt., A.U.S.  
Marquis, F. M., Waterloo (APO 180, Los Angeles, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Des Moines, Ia.) Lt. Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.) ..... Capt., A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.) ..... Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Ames, Iowa) ..... Lt., U.S.N.R.

## Boone County

Brewster, E. S., Boone (Camp Chaffee, Ark.) ..... Major, A.U.S.  
Healy, M. J., Boone  
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

## Bremer County

Amie, P. J., Tripoli (Iowa City, Iowa)  
Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rath, H. W., Waverly (APO 647, New York, N. Y.) Capt., A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.) ..... 1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.) ..... Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Lechey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Anrora (Camp Rucker, Ala.) ..... Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.) ..... Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho) ..... Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) ..... Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.) ..... Major, A.U.S.

## Butler County

Anderson, B. V., Greene (Fleet PO, Seattle, Wash.) Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rolf, F. O., Parkersburg (Springfield, Mo.) ..... 1st Lt., A.U.S.

## Calhoun County

Grinley, A. V., Rockwell City (APO 507, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.) ..... Capt., A.U.S.  
Peek, L. H., Lake City (Jefferson Barracks, Mo.) ..... Capt., A.U.S.  
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (Camp Carson, Colo.) ..... 1st Lt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Berkeley, Texas)  
Anneberg, W. A., Carroll  
Cochran, J. L., Carroll (Gulfport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Camp Maxey, Texas) ..... Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.) ..... Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.) ..... A.U.S.  
Tindall, R. N., Coon Rapids (APO 948, Seattle, Wash.) ..... Major, A.U.S.  
Wyatt, M. R., Manning (Camp Campbell, Ky.) ..... Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (Omaha, Nebr.) ..... Major, A.U.S.  
Longstreth, C. M., Atlantic (Norman, Okla.) Lt. Comdr., U.S.N.R.  
Needles, R. M., Atlantic (APO 9649, New York, N. Y.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.) ..... Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) ..... Lt., U.S.N.R.  
Mosher, M. L., West Branch (APO 560, New York, N. Y.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Camp Polk, La.) ..... Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Brigham City, Utah) ..... Capt., A.U.S.  
Egloff, W. C., Mason City (Chandler, Ariz.) ..... Capt., A.U.S.  
Flickinger, R. R., Mason City (Tuscaloosa, Ala.) ..... Capt., A.U.S.  
Hale, A. E., Dougherty (Camp Shelby, Miss.) ..... Capt., A.U.S.  
Harris, R. H., Mason City (Dyersburg, Tenn.) ..... Capt., A.U.S.  
Harrison, G. E., Mason City (APO 763, New York, N. Y.) ..... Col., A.U.S.  
Houlahan, J. E., Mason City (APO 839, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 758, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (APO 9379, New York, N. Y.) ..... Capt., A.U.S.  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (Ayer, Mass.) ..... Capt., A.U.S.

## Cherokee County

Bullock, G. D., Washta (Camp Livingston, La.) ..... Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.) Capt., A.U.S.  
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (Denver, Colo.) ..... Capt., A.U.S.  
Murphy, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) ..... Major, A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.

## Clay County

Adams, G. W., Royal (Fort Clayton, Panama Canal Zone)  
Edgington, F. D., Spencer (Fort Devens, Mass.) ..... Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.) ..... Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Rhombert, E. B., Guttenberg (Camp Wallace, Texas) Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Portland, Ore.) ..... Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.) ..... A.U.S.  
Christensen, E. D., Grand Mound (Iowa City)  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) Capt., A.U.S.  
Hill, D. E., Clinton (Nashville, Tenn.) ..... Capt., A.U.S.  
King, R. C., Clinton (APO 185, Los Angeles, Cal.) ..... Capt., A.U.S.  
Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Norment, J. E., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

Riedesel, E. V., Wheatland (Fort Douglas, Utah)  
Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
Snyder, D. C., De Witt  
Van Epps, E. F., Clinton (Palm Springs, Cal.) ..... Capt., A.U.S.  
Waggoner, C. V., Clinton (San Bruno, Cal.) Lt. Comdr., U.S.N.R.

## Crawford County

Fee, C. H., Denison (Dunnellon, Fla.) ..... Capt., A.U.S.  
Gau, A. H., Denison ..... Lt. Comdr., U.S.N.R.  
Maire, E. J., Vail (San Francisco, Cal.)  
Wetrich, M. F., Manilla (San Antonio, Tex.)

## Dallas-Guthrie Counties

Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) Major, A.U.S.  
Fail, C. S., Adel (Pacific Beach, Wash.) ..... Lt., U.S.N.R.



Margolin, J. M., Perry (Camp Cooke, Cal.).....Capt., A.U.S.  
 McGilvra, R. I., Guthrie Center (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Mullmann, A. J., Adel (Milwaukee, Wis.).....Capt., A.U.S.  
 Nicoll, C. A., Panora (Camp Campbell, Ky.).....Capt., A.U.S.  
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.).....Capt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.).....Capt., A.U.S.

#### Davis County

Fenton, C. D., Bloomfield (Camp Ellis, Ill.).....Capt., A.U.S.  
 Gillilan, G. W., Bloomfield (Oceanside, Cal.).....Lt. Comdr., U.S.N.R.

#### Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.).....Capt., A.U.S.

#### Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.).....Capt., A.U.S.  
 Clark, R. E., Manchester (APO 419, New York, N. Y.).....Capt., A.U.S.

#### Des Moines County

Eigenfeld, M. L., Burlington (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.).....Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.).....Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (Fort Lewis, Wash.).....Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.).....Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (Ablene, Texas).....Capt., A.U.S.  
 Sage, E. C., Burlington.....Lt. Comdr., U.S.N.R.

#### Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Henning, G. G., Milford (Camp Adair, Ore.).....Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.).....Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake (APO New York, N. Y.).....Capt., A.U.S.

#### Dubuque County

Beddoes, M. G., Cascade (APO 932, San Francisco, Cal.).....Capt., A.U.S.  
 Conzett, D. C., Dubuque (APO 9639, New York, N. Y.).....Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio).....Capt., A.U.S.  
 Edstrom, Henry, Dubuque (Clinton, Iowa).....Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.).....Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas).....1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.).....Major, A.U.S.  
 Langford, W. R., Epworth (APO 948, Seattle, Wash.).....Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.).....Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.).....1st Lt., A.U.S.  
 Mueller, J. J., Dubuque (Hattiesburg, Miss.).....1st Lt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.).....Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.).....Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.).....Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.).....1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.).....Major, A.U.S.  
 Smith, C. W., Dubuque (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.).....Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas).....Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Lake Bluff, Ill.).....Lt. Comdr., U.S.N.R.

#### Emmett County

Clark, J. P., Estherville (APO New York, N. Y.).....Capt., A.U.S.  
 Collins, L. E., Estherville (Camp Dodge, Iowa).....A.U.S.  
 Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

#### Fayette County

Camp, D. E., West Union (Camp Blanding, Fla.).....Capt., A.U.S.  
 Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.).....Major, A.U.S.  
 Hess, A. M., West Union (Albuquerque, N. Mex.).....Capt., A.U.S.  
 Sulzbach, J. F., Oelwein  
 Walsh, W. E., Hawkeye (Great Lakes, Ill.).....Lt. Comdr., U.S.N.R.

#### Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.).....Major, A.U.S.  
 Flater, N. C., Floyd (APO Los Angeles, Cal.).....Capt., A.U.S.  
 Knight, R. A., Rockford (San Diego, Cal.).....Lt., U.S.N.R.  
 Mackie, D. G., Charles City (APO 9589, New York, N. Y.).....1st Lt., A.U.S.  
 Miner, J. B., Jr., Charles City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (San Pedro, Cal.).....Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.).....1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (care PM, San Francisco, Cal.).....Lt., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.).....Lt., U.S.N.R.  
 Walton, S. G., Hampton (Camp Robinson, Ark.).....1st Lt., A.U.S.

#### Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.).....Capt., A.U.S.  
 Marrs, W. D., Tabor (Wright Field, Ohio).....Capt., A.U.S.  
 Wanamaker, A. R., Hamburg (Los Angeles, Cal.).....Capt., A.U.S.

#### Greene County

Cartwright, F. P., Grand Junction (Boise, Idaho).....Capt., A.U.S.  
 Castles, W. A., Jr., Rippey (APO San Francisco, Cal.).....Capt., A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.).....Capt., A.U.S.  
 Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Limberg, J. I., Jr., Jefferson (APO 503 San Francisco, Cal.).....Major, A.U.S.  
 Lohr, P. E., Churdan (San Diego, Cal.).....A.U.S.

#### Grundy County

Rose, J. E., Grundy Center (Norman, Okla.).....Lt. Comdr., U.S.N.R.

#### Hamilton County

Buxton, O. C., Webster City (Port Angeles, Wash.).....1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.).....Major, A.U.S.  
 James, D. W., Kamrar (APO 700, New York, N. Y.).....Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 763, New York, N. Y.).....Capt., A.U.S.  
 Mooney, F. P., Jewell (London, England).....Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Berkeley, Texas).....Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (Greenwood, S. Car.).....A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.).....Capt., A.U.S.

#### Hancock-Winnebag Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.).....Capt., A.U.S.  
 Dulmes, A. H., Klemme (APO 4778, New York, N. Y.).....Capt., A.U.S.  
 Eller, L. W., Kanawba (APO 302, New York, N. Y.).....Capt., A.U.S.  
 Irish, T. J., Forest City (Farragut, Idaho).....Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Tucson, Ariz.).....A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.).....Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Mare Island, Cal.).....Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.).....1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.).....Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Ft. Sill, Okla.).....Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.).....1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Todd, V. S., Eldora (Camp Cooke, Cal.).....Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Benning, Ga.).....A.U.S.  
 Burbridge, G. E., Logan (APO New York, N. Y.).....Major, A.U.S.  
 Byrnes, C. W., Dunlap (APO Seattle, Wash.).....Major, A.U.S.  
 Heise, C. A., Jr., Missouri Valley  
 Tamsieia, F. X., Missouri Valley (Jefferson Barracks, Mo.).....Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.).....Major, A.U.S.  
 Dwankowski, Carl, Mt. Pleasant (APO 307, New York, N. Y.).....1st Lt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (Fort McPherson, Ga.).....Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (Yuma, Ariz.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (Camp Cooke, Cal.).....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Fresno, Cal.).....1st Lt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.  
 Martin, J. W., Holstein (Montgomery, Ala.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Clark, Texas).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (APO 9554, New York, N. Y.).....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

**Jefferson County**

Castell, J. W., Fairfield (Fort Devens, Mass.).....Capt., A.U.S.  
 Gittler, Ludwig, Fairfield (APO 1001, New York,  
 N. Y.).....Lt. Col., A.U.S.  
 Graber H. E., Fairfield (Carlisle Barracks, Penn.) Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

**Johnson County**

Agnew, J. W., Iowa City (Trinidad, Colo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (Clinton, Iowa).....Major, A.U.S.  
 Boiler, W. F., Iowa City (Fort Leonard Wood,  
 Mo.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.)

.....Lt. Col., A.U.S.  
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (El Toro, Cal.).....Lt. U.S.N.R.  
 Cooper, W. K., Iowa City (Jefferson Barracks, Mo.) Capt., A.U.S.  
 Crowell, E. A., Iowa City (Randolph Field, Tex.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Key West, Fla.).....Lt., U.S.N.R.  
 Dornier, R. A., Iowa City (APO 534, New York,  
 N. Y.).....Capt., A.U.S.

Elmquist, H. S., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt., U.S.N.R.  
 Emmons, H. S., Iowa City (Abilene, Texas).....Capt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourn, A. S., Iowa City (APO 34, New York,  
 N. Y.).....Lt. Col., A.U.S.

Francis, N. L., Iowa City (Annapolis, Md.) Lt. (jg), U.S.N.R.  
 Gallinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York,  
 N. Y.).....Major, A.U.S.

Hardin, R. C., Iowa City (APO 508, New York,  
 N. Y.).....Capt., A.U.S.

Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (Pepperell, Mass.).....1st Lt., A.U.S.  
 Irwin, R. L., Iowa City (Iowa City, Iowa).....Lt. Comdr., U.S.N.R.  
 January, L. E., Iowa City (McCook, Nebr.).....Capt., A.U.S.  
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt. (jg), U.S.N.R.

Longwell, F. H., Iowa City (APO 505, New York,  
 N. Y.).....Capt., A.U.S.

Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagyfy, S. F., Iowa City (Memphis, Tenn.).....Lt. (jg), U.S.N.R.  
 Newmnan, R. W., Iowa City (Fleet PO, New York,  
 N. Y.).....Lt., U.S.N.R.

Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 1001, New York,  
 N. Y.).....Lt. Col., A.U.S.

Petersen, V. W., Iowa City (APO 689, New York,  
 N. Y.).....Col., A.U.S.

Sells, R. L., Jr., Iowa City (South San Francisco,  
 Cal.).....Capt., A.U.S.

Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Starks, W. A., Iowa City (Camp Robinson, Ark.).....1st Lt., A.U.S.

Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.  
 Stump, R. B., Iowa City (Fort Leonard Wood,  
 Mo.).....Capt., A.U.S.

Titus, E. L., Iowa City (Fort Banks, Mass.).....Col., A.U.S.  
 Trepasso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.

Trussell, R. E., Iowa City (Philadelphia, Pa.).....1st Lt., A.U.S.  
 Vest, W. M., Iowa City (APO 928, San Francisco,  
 Cal.).....Capt., A.U.S.

Ward, R. H., Iowa City (Cherry Point,  
 N. C.).....Lt. Comdr., U.S.N.R.

Weatherly, H. E., Iowa City (APO 7278, San Francisco,  
 Cal.).....1st Lt., A.U.S.

Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

**Junior Members**

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.) 1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.) Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.  
 Brintnall, E. S., Iowa City (Colorado Springs,  
 Colo.).....1st Lt., A.U.S.

Burr, S. P., Iowa City (APO San Francisco, Cal.) 1st Lt., A.U.S.

Connole J. F., Iowa City (Camp Bowie, Texas) 1st Lt., A.U.S.

Couch, O. A., Iowa City (Camp Van Dorn, Miss.) 1st Lt., A.U.S.

Decker, C. E., Iowa City (Oklahoma City, Okla.) 1st Lt., A.U.S.

Donnelly B. A., Iowa City (APO San Francisco,  
 Cal.).....1st Lt., A.U.S.

Ehrenhaft, J. L., Iowa City (APO New York,  
 N. Y.).....1st Lt., A.U.S.

Englerth, F. L., Iowa City (APO San Francisco,  
 Cal.).....Capt., A.U.S.

Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.

Glassman A. L., Iowa City (Palm Springs, Cal.) 1st Lt., A.U.S.

Gilliland, C. H., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.

Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.

Harms, G. E., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.

Hendricks, A. B., Iowa City (Farragut, Idaho).....Lt., U.S.N.

Hovis, Wm., Iowa City (San Diego, Cal.).....Lt. (jg), U.S.N.R.

Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.

Jacobs, C. A., Iowa City (APO New York, N. Y.) Major, A.U.S.

Kaplan, Nathan, Iowa City (Carlisle Bar-  
 racks, Pa.).....1st Lt., A.U.S.

Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.

Keiberg, M. R., Iowa City (Treasure Island,  
 Cal.).....Lt. (jg), U.S.N.R.

Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.

Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.

Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.

Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.

McCann, J. P., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.

McQuiston, W. O., Iowa City (APO San Francisco,  
 Cal.).....Capt., A.U.S.

Moen, B. H., Iowa City

Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.

Odell, Lester, Iowa City (Alameda, Cal.).....Lt. (jg), U.S.N.R.

Phillips, R. M., Iowa City (San Francisco, Cal.) 1st Lt., A.U.S.

Pulliam, R. L., Iowa City (Portland, Ore.).....Major, A.U.S.

Randall, C. G., Iowa City

Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.

Rosenbusch, M., Iowa City (Fort Leonard Wood,  
 Mo.).....1st Lt., A.U.S.

Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.

Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.

Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.

Schwidde, J. T., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.

Shand, J. A., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.

Shapiro, S. I., Iowa City

Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.

Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.

Skouge, O. T., Iowa City

Towle, R. A., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt., U.S.N.R.

Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.

Watters, V. G., Iowa City (Fort Leonard Wood,  
 Mo.).....1st Lt., A.U.S.

Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.

Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.

Willumsen, H. C., Iowa City (Chico, Cal.).....Capt., A.U.S.

Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.

Yetter, W. L., Iowa City (APO New York, N. Y.) Capt., A.U.S.

Zahrt, N. E., Iowa City (Miami Beach, Fla.).....1st Lt., A.U.S.

Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

**Keokuk County**

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.

Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.

Engelmann, A. T., What Cheer (Camp Polk, La.) Capt., A.U.S.

Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.

Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.

Wiley, Dudley, Hedrick (Mason City, Wash.)

**Kossuth County**

Clapsaddle, D. W., Burt (Ft. Benning, Ga.).....1st Lt., A.U.S.

Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.

Williams, R. L., Lakota (San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.

**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.

Cleary, H. G., Fort Madison (APO 726, Seattle, Wash.).....

.....Capt., A.U.S.

Cooper, R. E., Keokuk (Fort Riley, Kan.).....A.U.S.

Johnstone, A. A., Keokuk (Camp Fannin, Texas).....Col., A.U.S.

McKee, T. L., Keokuk (APO 922, San Francisco,  
 Cal.).....Major, A.U.S.

Pumphrey, L. C., Keokuk (Ft. Leonard Wood,  
 Mo.).....Major, A.U.S.

Rankin, J. R., Keokuk (Fleet PO, New York,  
 N. Y.).....Lt., U.S.N.R.

Richmond, A. C., Fort Madison (Treasure Island,  
 Cal.).....Lt. Comdr., U.S.N.R.

Steffey, F. L., Keokuk (Fort Snelling, Minn.)

Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.)  
 .....Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.).....Major, A.U.S.

Berney, P. W., Cedar Rapids (San Francisco, Cal.) Capt., A.U.S.

Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.)  
 .....1st Lt., A.U.S.

Chapman, R. M., Cedar Rapids (Chicago, Ill.).....Capt., A.U.S.

Coughlan, V. H., Cozgon (Fort Snelling, Minn.).....A.U.S.

Courter, W. O., Springville (APO 464, New York,  
 N. Y.).....Capt., A.U.S.

Crew, P. I., Marion (Monroe, La.).....Capt., A.U.S.

Dunn, F. C., Cedar Rapids (Pocatello, Idaho).....Capt., A.U.S.

Halpin, L. J., Cedar Rapids (Atlanta, Ga.).....Major, A.U.S.

Hecker, J. T., Cedar Rapids (Oxnard, Cal.).....1st Lt., A.U.S.

Jirsa, H. O., Cedar Rapids (APO 871, New York,  
 N. Y.).....Major, A.U.S.

Keith, J. J., Marion (Ft. Benjamin Harrison, Ill.).....Major, A.U.S.

Kieck, E. G., Cedar Rapids (Fleet PO, San Fran-  
 cisco, Cal.).....Lt. Comdr., U.S.N.R.

Kruckenbergh, W. G., Mount Vernon (Rochester  
 Minn.).....Lt., U.S.N.R.

Locher, R. C., Cedar Rapids (Descanso, Cal.).....Major, A.U.S.

MacDougal, R. F., Cedar Rapids (APO 9057, New York,  
 N. Y.).....Capt., A.U.S.

McConkie, E. B., Cedar Rapids (Scott Field, Ill.).....Major, A.U.S.

McQuiston, J. S., Cedar Rapids (Salina, Kan.).....Major, A.U.S.

Meffert, C. B., Cedar Rapids (Nashville, Tenn.).....Major, A.U.S.

Netolicky, R. Y., Cedar Rapids (San Francisco, Cal.).....Lt., U.S.N.R.

Noble, W. C., Cedar Rapids (Camp San Luis Obispo,  
 Cal.).....1st Lt., A.U.S.

Noe, C. A., Cedar Rapids (Hot Springs, Ark.).....Major, A.U.S.



Parke, John, Cedar Rapids (APO 761, New York, N. Y.) .....Major., A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) .....Lt. Cmdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) .....Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (Camp Rucker, Ala.) Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) .....Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) .....Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO, 957, San Francisco, Cal.) .....Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 34, New York, N. Y.) .....Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) .....Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (San Diego, Cal.) .....Lt. Comdr., U.S.N.R.

#### Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas) .....Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.

#### Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) .....A.U.S.

#### Lyon County

Cook, S. H., Rock Rapids (Memphis, Tenn.) .....Capt., A.U.S.  
 †Corcoran, T. E., Rock Rapids (APO New York, N. Y.) .....Capt. A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 700, New York, N. Y.) .....Capt. A.U.S.

#### Madison County

Boden, H. M., Truro (Fresno, Cal.) .....Capt., A.U.S.  
 Chesnut, P. F., Winterset (Salem, Ore.) .....Capt., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) .....Lt. Col., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) .....Capt., A.U.S.

#### Mahaska County

Bennett, G. W., Oskaloosa (Fort Riley, Kan.) .....Major, A.U.S.  
 Bos, H. C., Oskaloosa .....Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Ventura, Cal.) .....Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) Lt. Comdr., U.S.N.R.  
 Lemon, K.M., Oskaloosa .....1st Lt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 81, Los Angeles, Cal.) .....1st Lt., A.U.S.

#### Marion County

Elliott, V. J., Knoxville (Portland, Ore.) .....Capt., A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) .....Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) .....Capt., A.U.S.  
 Schiek, C. M., Knoxville .....Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Bastrop, Texas) .....1st Lt., A.U.S.  
 Williams, D. B., Knoxville .....Capt. A.U.S.

#### Marshall County

Carpenter, R. C., Marshalltown (APO New York, N. Y.) .....Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) .....Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) Major, A.U.S.  
 Meyer, M. G., Marshalltown (Ft. Geo. Meade, Md.) Major, A.U.S.  
 Noonan, J. J., Marshalltown (APO 928, San Francisco, Cal.) .....Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 730, Seattle, Wash.) Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) .....Capt., A.U.S.  
 Smith, E. M., State Center (APO 12726, New York, N. Y.) .....Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (Portland, Ore.) .....Capt., A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (Fort Riley, Kan.) .....Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.

#### Mills County

DeYoung, W. A., Glenwood (APO 813, New York, N. Y.) .....Capt., A.U.S.  
 Margaret, E. C., Glenwood (APO 462, Minneapolis, Minn.) .....Capt. A.U.S.  
 Shonka, T. E., Malvern (APO 4913, New York, N. Y.) .....Capt., A.U.S.

#### Mitchell County

Culbertson, R. A., St. Ansgar (Fort Knox, Ky.) .....Lt. Col., A.U.S.  
 Moore, E. E., Osage (Camp Mackall, N. C.) .....Major, A.U.S.  
 Owen, W. E., Osage (San Francisco, Cal.) .....Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) .....Lt., U.S.N.R.

#### Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) .....A.U.S.  
 Anderson, S. N., Onawa (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 4759, San Francisco, Cal.) .....1st Lt., A.U.S.  
 Gaukel, L. A., Onawa (Vancouver, Wash.) .....Capt., A.U.S.  
 †Harlan, M. E., Onawa (care FM, San Francisco, Cal.) .....Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Rosecrans, Cal.) .....A.U.S.  
 Wainwright, M. T., Mapleton (APO 939, Seattle, Wash.) .....A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) .....Capt., A.U.S.

#### Monroe County

Heimann, V. R., Albia (Camp Maxey, Texas) .....Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) .....Capt., A.U.S.  
 Smith, R. A., Albia (San Antonio, Texas) .....1st Lt., A.U.S.

#### Montgomery County

Bastron, H. C., Red Oak (Warner Robins, Ga.) .....Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) .....Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (San Diego, Cal.) .....Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) .....Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) .....Capt., A.U.S.

#### Muscatine County

Ady, A. E., West Liberty (Pensacola, Fla.) Lt. Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) .....1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Kalamazoo, Mich.) .....Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) Lt. Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) .....Capt., A.U.S.  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) .....Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 9212, New York, N. Y.) .....Major, A.U.S.  
 Norem, Walter, Muscatine (APO Miami, Fla.) .....Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 647, New York, N. Y.) .....Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) .....Lt. Col., A.U.S.

#### O'Brien County

Getty, E. B., Primghar (APO 117, New York, N. Y.) .....Capt., A.U.S.  
 Hayne, W. W., Paullina (APO New York, N. Y.) .....1st Lt., A.U.S.  
 Moen, S. T., Hartley (APO 3492, New York, N. Y.) Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) .....1st Lt., A.U.S.

#### Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) .....Capt., A.U.S.

#### Page County

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) .....Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) .....Capt., A.U.S.  
 Bossingham, E. N., Clarinda (APO 923, San Francisco, Cal.) .....Capt., A.U.S.  
 Bunch, H. Mck., Shenandoah (Farragut, Idaho) .....Lt. Comdr., U.S.N.R.  
 †Burdick, F. D., Shenandoah (APO, New York, N. Y.) .....Capt., A.U.S.  
 Burnett, F. K., Clarinda (APO 928, San Francisco, Cal.) .....Major, A.U.S.  
 Little, E. B., Shenandoah .....1st Lt., A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) 1st Lt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) .....1st Lt., A.U.S.

#### Palo Alto County

Davey, W. P., Emmetsburg (San Diego, Cal.) Lt. (jg), U.S.N.R.

#### Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.) .....1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Carlisle Barracks, Pa.) .....1st Lt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) .....Capt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) .....Capt., A.U.S.

#### Pocahontas County

Blair, F. L., Jr., Fonda .....1st Lt., A.U.S.  
 Herrick, T. G., Gilmore City (Camp Swift, Texas) .....Capt., A.U.S.  
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) .....Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) .....Capt., A.U.S.

#### Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) .....Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Camp Maxey, Texas) .....Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) .....Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) .....Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) .....Capt., A.U.S.  
 Bates, M. T., Des Moines (Fleet PO, New York, N. Y.) .....Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) .....1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) .....Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Riverside, Cal.) .....Capt., A.U.S.  
 Brown, A. W., Des Moines (Camp Carson, Colo.) .....Capt., A.U.S.  
 Bruner, J. M., Des Moines (Fort Bliss, Texas) .....Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) .....1st Lt., A.U.S.  
 †Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef.-Offizierlager XXI B, Deutschland [Allemagne]) .....Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Vulcan, Alberta, Canada) .....Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (Concordia, Kan.) .....1st Lt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (Randolph Field, Texas) .....1st Lt., A.U.S.  
 Connell, J. R., Des Moines (APO New York, N. Y.) Capt., A.U.S.

- Corn, H. H., Des Moines (St. Louis, Mo.).....Capt., A.U.S.  
 Coughlan, D. W., Des Moines (Camp Swift, Tex.)...Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.)...Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.).....1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.).....Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.).....Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Fort Snelling, Minn.)...1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 628, New York, N. Y.).....Major, A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas).....Capt., A.U.S.  
 Ellis, H. G., Des Moines (Kearney, Nebr.).....Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas).....Major, A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Fracasse, John, Des Moines.....1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines.....Major, A.U.S.  
 Gibson, D. N., Des Moines (APO 9128, San Francisco, Cal.).....Major, A.U.S.  
 Glomset, D. A., Des Moines (New Orleans, La.)...1st Lt., A.U.S.  
 Goldberg, Louie, Des Moines (Greensboro, N. C.)...Capt., A.U.S.  
 Gordon, A. M., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 758, New York, N. Y.).....1st Lt., A.U.S.  
 Gurau, H. H., Des Moines (Santa Ana, Cal.).....1st Lt., A.U.S.  
 Haines, D. J., Des Moines (APO 913, San Francisco, Cal.).....Capt., A.U.S.  
 Harris, D. D., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.).....1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 James, A. D., Des Moines (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.).....Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Los Angeles, Cal.).....Capt., A.U.S.  
 Kelley, E. J., Des Moines (Marshall, Mo.).....Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.).....Lt. Col., A.U.S.  
 Kloksiem, H. L., Des Moines.....Lt. (jg), U.S.N.R.  
 Kottke, E. E., Des Moines (Temple, Texas).....Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.).....1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Lederman, James, Des Moines.....1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.)...Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (Jackson, Miss.)...1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.)...1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Chicago, Ill.).....Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.).....1st Lt., A.U.S.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa).....Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (Ft. Sam Houston, Tex.)...Capt., A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.).....Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines.....1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.).....Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....Capt., A.U.S.  
 Morden, R. P., Des Moines (APO 4570, New York, N. Y.).....Capt., A.U.S.  
 Murphy, J. H., Des Moines (Barstowe, Cal.).....Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.)...Major, A.U.S.  
 Noun, L. J., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Noun, M. H., Des Moines (APO 514, New York, N. Y.).....Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.).....1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.).....Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 9301, New York, N. Y.).....Capt., A.U.S.  
 Penn, E. C., West Des Moines (APO 4062, New York, N. Y.).....Capt., A.U.S.  
 Pfeiffer, E. P., Des Moines (Springfield, Mo.)...Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corpus Christi, Texas).....Lt., U.S.N.R.  
 Porter, R. J., Des Moines (APO 12764, New York, N. Y.).....Capt., A.U.S.  
 Powell, L. D., Des Moines (Long Beach, Cal.)...Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.)...Capt., A.U.S.  
 Priestley, J. B., Des Moines (Camp Phillips, Kan.)...Major, A.U.S.  
 Purdy, W. O., Des Moines (Camp Howze, Texas)....Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.).....Major, A.U.S.  
 Robinson, V. C., Des Moines (Tampa, Fla.).....Capt., A.U.S.  
 Rotkow, M. J., Des Moines (Louisville, Ky.).....Capt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Shepherd, L. K., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Shifer, H. K., Des Moines (APO New York, N. Y.)...Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.)...1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (Brownsville, Texas).....1st Lt., U.S.P.H.S.  
 Smead, H. H., Des Moines (APO 638, New York, N. Y.).....Capt., A.U.S.  
 Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Smith, R. T., Des Moines (Oklahoma City, Okla.)...1st Lt., A.U.S.  
 Snodgrass, R. W., Des Moines (Fort Rosecrans, Cal.).....Capt., A.U.S.  
 Snyder, G. E., Grimes (APO 709, San Francisco, Cal.).....Major, A.U.S.  
 Sohm, H. A., Des Moines (Oceanside, Cal.).....Lt. Comdr., U.S.N.R.  
 Sorensen, R. M., Des Moines (Topeka, Kan.)...Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.  
 Stearns, A. B., Des Moines (Denver, Colo.)...Major, A.U.S.  
 Stickler, Robert, Des Moines (Fort Benning, Ga.)...Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (APO 9494, New York, N. Y.).....Capt., A.U.S.  
 Toubes, A. A., Des Moines (APO 12453, New York, N. Y.).....Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas)....Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.)...1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (Ft. Geo. Meade, Md.)...Capt., A.U.S.  
 Vaubel, E. K., Des Moines (Silver Spring, Md.)...Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.)...1st Lt., A.U.S.  
 Willett, W. M., Des Moines (APO 873, New York, N. Y.).....Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Zarchy, A. C., Des Moines (Camp Cook, Cal.).....Capt., A.U.S.
- Pottawattamie County**  
 †Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.  
 Cogley, J. P., Council Bluffs (APO 503, San Francisco, Cal.).....Major, A.U.S.  
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Olathe, Kan.).....Lt. Comdr., U.S.N.R.  
 Floersch, E. B., Council Bluffs (Bremerton, Wash.).....Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Chicago, Ill.)...Lt., U.S.N.R.  
 Jensen, A. L., Council Bluffs (APO 952, San Francisco, Cal.).....Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.)...Capt., A.U.S.  
 Lambert, E. M., Council Bluffs (Atlanta, Ga.).....Capt., A.U.S.  
 Malden, S. D., Council Bluffs (Longview, Tex.)...Major, A.U.S.  
 Martin, L. R., Council Bluffs (APO 923, San Francisco, Cal.).....Capt., A.U.S.  
 Moskovitz, J. M., Council Bluffs (Camp Lockett, Cal.).....Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (APO 938, Seattle, Wash.).....Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 34, New York, N. Y.).....Capt., A.U.S.  
 Treynor, J. V., Council Bluffs (Rochester, Minn.).....Lt. Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.)...1st Lt., A.U.S.  
 Wurl, O. A., Council Bluffs (APO 871, New York, N. Y.).....Capt., A.U.S.
- Poweshiek County**  
 Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.)...Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.)...1st Lt., A.U.S.  
 Korfmacher, E. S., Grinnell (San Francisco, Cal.).....Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco, Cal.).....Capt., A.U.S.  
 Parish, J. R., Grinnell (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.
- Ringgold County**  
 Seaman, C. L., Mount Ayr (Fort Smith, Ark.)...Capt., A.U.S.
- Sac County**  
 Bassett, G. H., Sac City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 1001, New York, N. Y.).....Capt., A.U.S.  
 Evans, W. I., Sac City (APO 9212, New York, N. Y.)...Capt., A.U.S.  
 Kloksiem, R. G., Odebolt (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Neu, H. N., Sac City (APO 4936, San Francisco, Cal.).....Major, A.U.S.
- Scott County**  
 Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.  
 Balzer, W. J., Davenport (APO 939, Seattle, Wash.)...Capt., A.U.S.  
 Bishop, J. F., Davenport (APO 729, Seattle, Wash.).....Capt., A.U.S.  
 Block, L. A., Davenport (APO 534, New York, N. Y.).....Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York, N. Y.).....Capt., A.U.S.



Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.  
 Brown, D. H., Davenport (Waycross, Ga.).....Capt., A.U.S.  
 Brown, M. J., Davenport (Camp Hale, Colo.)...Major, A.U.S.  
 Carey, E. T., Davenport (Fort Andrews, Mass.)...1st Lt., A.U.S.  
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.).....Capt., A.U.S.  
 Coleman, Tom, Davenport (Camp Stewart, Ga.)...1st Lt., A.U.S.  
 Cummins, G. M., Jr., Davenport.....1st Lt., A.U.S.  
 Decker, C. E., Davenport (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Evans, H. J., Davenport (St. Petersburg, Fla.)...Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.)...Capt., A.U.S.  
 Goenne, Wm., Jr., Davenport (Camp White, Ore.)...1st Lt., A.U.S.  
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.).....Major, A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.)...1st Lt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Berkeley, Texas).....Major, A.U.S.  
 Kimberly, L. W., Davenport (New Orleans, La.)...Capt., A.U.S.  
 Krakauer, Max, Davenport (Camp Campbell, Ky.)...Capt., A.U.S.  
 LaDage, L. H., Davenport (APO 180, Los Angeles, Cal.).....Major, A.U.S.  
 Lorfeld, G. W., Davenport (Columbus, Ohio)....Capt., A.U.S.  
 Marker, J. L., Davenport (Camp Carson, Colo.)...Col., A.U.S.  
 McMeans, T. W., Davenport (APO 514, New York, N. Y.)...1st Lt., A.U.S.  
 Neufeld, R. J., Davenport (Camp Ellis, Ill.).....Capt., A.U.S.  
 Perkins, R. M., Davenport (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Sheeler, I. H., Davenport (Carlisle Barracks, Pa.)...Capt., A.U.S.  
 Shorey, J. R., Davenport (Carlisle Barracks, Pa.)...Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 514, New York, N. Y.)...1st Lt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.)...Lt. Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (Paris, Texas)....Capt., A.U.S.  
 Weinberg, H. B., Davenport (Fort Benning, Ga.)...Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.).....Capt., A.U.S.

#### Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho).....Lt. Comdr., U.S.N.R.  
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.).....Capt., A.U.S.  
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.

#### Sioux County

Gleysteen, R. R., Alton (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (Fort Sam Houston, Texas).....1st Lt., A.U.S.  
 Larson, M. O., Hawarden (Camp Bowie, Texas)....Major, A.U.S.  
 Oelrich, A. M., Hull (Biloxi, Miss.).....1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Biloxi, Miss.).....1st Lt., A.U.S.

#### Story County

Conner, J. D., Nevada (APO 708, San Francisco, Cal.).....Capt., A.U.S.  
 Fellows, J. G., Ames (Ft. Leonard Wood, Mo.)....Capt., A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.)....Lt., U.S.N.R.  
 McFarland, J. E., Ames (Farragut, Idaho)....Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (Del Valle, Texas).....Capt., A.U.S.  
 Sperow, W. B., Nevada (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamogordo, N. Mex.)...Major, A.U.S.

#### Tama County

Bezman, H. S., Traer (Camp Hood, Tex.).....1st Lt., A.U.S.  
 Boller, G. C., Traer (Camp Bowie, Texas).....Capt., A.U.S.  
 Dobias, S. G., Chelsea (APO 937, Seattle, Washington)  
 Havlik, A. J., Tama (San Diego, Cal.).....Lt., U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.)  
 Standefer, J. M., Tama (Fort Huene, Cal.).....Lt., U.S.N.R.

#### Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.).....1st Lt., A.U.S.

#### Union County

Beatty, H. G., Creston (Camp Berkeley, Tex.)...1st Lt., A.U.S.  
 Paragas, M. R., Creston (Camp Beale, Cal.).....Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.).....Capt., A.U.S.

#### Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.).....1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO New York, N. Y.)...Major, A.U.S.  
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.)...Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.)...Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (Camp Butler, N. C.)...1st Lt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa.....Capt., A.U.S.  
 Prewitt, L. H., Ottumwa (March Field, Cal.)...Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas).....Lt. Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.)...Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego, Cal.).....Lt. Comdr., U.S.N.R.

#### Warren County

Fullgrave, E. A., Indianola (San Diego, Cal.)...Lt., U.S.N.R.  
 Hoffman, G. R., Lacona (Camp San Luis Obispo, Cal.).....Capt., A.U.S.  
 Shaw, E. E., Indianola (APO 834, New Orleans, La.).....Capt., A.U.S.  
 Trueblood, C. A., Indianola (APO 730, Seattle, Wash.).....Capt., A.U.S.

#### Washington County

Boice, C. L., Washington (Atlantic City, N. J.)...Lt., U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

Mast, T. M., Washington (Portland, Ore.).....Lt. U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.)...1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Ware, S. C., Kalona (Camp McCoy, Wis.).....Capt., A.U.S.

#### Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.).....Capt., A.U.S.

#### Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.)...Capt., A.U.S.  
 Burch, E. S., Dayton (APO 4754, San Francisco, Cal.).....Capt., A.U.S.  
 Burleson, M. W., Fort Dodge (Monterey, Cal.)...1st Lt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa).....Major, A.U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.)...Lt. Comdr., U.S.N.R.  
 Joynor, N. M., Fort Dodge (Brooklyn Field, Ala.)  
 Kluever, H. C., Fort Dodge (Farragut, Idaho) Lt. Comdr., U.S.N.R.  
 Larsen, H. T., Fort Dodge (Pensacola, Fla.).....Lt., U.S.N.R.  
 Shrader, J. C., Fort Dodge (APO 181, Los Angeles, Cal.).....Major, A.U.S.  
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.)...Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.)...Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.)...Capt., A.U.S.

#### Winnebago County

Fritchen, A. F., Decorah (Treasure Island, Cal.).....Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.).....Major, A.U.S.  
 Howard, W. H., Decorah  
 Larson, L. E., Decorah (Farragut, Idaho)....Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Calif.)...Lt. (jg) U.S.N.R.  
 Van Besien, G. J., Decorah (APO New York, N. Y.).....1st Lt., A.U.S.

#### Woodbury County

Bettler, P. L., Sioux City (APO San Francisco, Cal.).....Major, A.U.S.  
 Blackstone, M. A., Sioux City (Pittsburg, Cal.)...1st Lt., A.U.S.  
 Boe, Henry, Sioux City (Salina, Kan.).....Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Cmeyla, P. M., Sioux City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.).....Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa)....1st Lt., A.U.S.  
 Down, H. I., Sioux City (Camp Breckenridge, Ky.).....Lt. Col., A.U.S.  
 Elson, V. J., Danbury (Camp Walters, Tex.)....Capt., A.U.S.  
 Frank, L. J., Sioux City (Mare Island, Cal.)...Lt. Comdr., U.S.N.R.  
 Graham, J. W., Sioux City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.).....Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Salt Lake City, Utah).....1st Lt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.)...Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.)...Capt., A.U.S.  
 Kaplan, David, Sioux City (APO 759, New York, N. Y.).....Capt., A.U.S.  
 Knott, P. D., Sioux City (Carlisle Barracks, Pa.)...Capt., A.U.S.  
 Knott, R. C., Sioux City (Atlanta, Ga.).....Capt., A.U.S.  
 Kriztgen, W. M., Sioux City (Springfield, Mo.)...Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (Santa Fe, N. Mex.)...Major, A.U.S.  
 Martin, R. F., Sioux City (Gallatin, Tenn.)....1st Lt., A.U.S.  
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.).....1st Lt., A.U.S.  
 McCuiston, H. M., Sioux City (APO New York, N. Y.).....Capt., A.U.S.  
 Mugan, R. C., Sioux City (Gowen Field, Idaho)...1st Lt., A.U.S.  
 Osincup, P. W., Sioux City (APO 9101, New York, N. Y.).....Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.)...Capt., A.U.S.  
 Reeder, J. E., Jr., Sioux City (Modesto, Cal.)...Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.).....Capt., A.U.S.  
 Schwartz, J. W., Sioux City (Ft. Leavenworth, Kan.).....Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Ephrata, Wash.).....Capt., A.U.S.

#### Worth County

Westly, G. S., Manly (APO 4580, San Francisco, Cal.).....Major, A.U.S.

#### Wright County

Aagesen, C. A., Dows (Greenville, Pa.).....Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.).....Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Phoenix, Ariz.).....Lt., U.S.N.R.  
 Gorrell, R. L., Clarion (Buffalo, N. Y.).....Lt., U.S.N.R.  
 Leinbach, S. P., Belmond (Farragut Air Base, Idaho)  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.).....Capt., A.U.S.

(\*) Reported missing in action.

(†) Reported killed in action.

(‡) Reported prisoner of war.

# WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

*President*—MRS. W. S. REILEY, Red Oak

*President-Elect*—MRS. J. C. DECKER, Sioux City

*Secretary*—MRS. A. G. FELTER, Van Meter

*Treasurer*—MRS. A. E. MERKEL, Des Moines

## WHAT OF THE WAGNER BILL?

"The following would appear to be adequate reasons why every doctor's wife should take time in her busy day to thoughtfully consider a measure, which, if permitted to become a law, would regulate the practice of medicine in both offices and hospitals.

"Never in history has any profession faced so serious a threat as now confronts the medical profession. Never has there been greater need for the physician to pause in his work and take stock of the forces which may engulf him and his profession before he is aware.

"The threat is that of a gigantic system of government medicine as outlined in the Wagner-Murray-Dingell Bill now before Congress. The alarm has been sounded in many quarters but there is the danger that the physician, engrossed in a heavy wartime practice, may look up only momentarily. For the sake of every doctor at home and at war, and for the sake of every patient they serve, this imminent danger of socialized medicine must be given careful study.

"It is suggested that the members of the Woman's Auxiliary study the following material carefully so that when the opportunity presents itself, the Bill can be discussed freely and intelligently. Never before in the history of the Woman's Auxiliary has there been such a need for constructive and whole-hearted support of the objectives of organized medicine as in this impending legislation."

Mrs. Luther H. Kice, Chairman, Legislation Committee of the Woman's Auxiliary to the American Medical Assn.

(Mrs. Kice's analysis of the Wagner Bill is most comprehensive, and we urge all Auxiliary members to read it in the December, 1943 issue of "The Bulletin".)

## MEDICAL HIGHLIGHTS OF 1943

1. Penicillin became widely known and used.
2. New types of anesthesia were introduced.
3. Mosquito control measures were perfected to combat malaria.
4. New uses were found for the sulfonamide drugs.
5. Intensive treatment centers were established for syphilis.
6. Attention was focused on neuropsychiatric disorders.
7. New facts about vitamin B<sub>12</sub> were discovered.
8. Treatment of infected wounds and shock was advanced.

9. Nutritionists named eight essential amino acids.

10. The birth rate in the United States reached an all time high.—"Some Medical Advances in 1943," by Morris Fishbein, M.D., in *Hygeia*, February, 1944.

## MEETING OF THE DALLAS-GUTHRIE AUXILIARY

The Dallas-Guthrie Medical Society and the Auxiliary met in joint session with the Adel Rotary Club for luncheon in Adel, January 20, 1944. Eleven members of the Auxiliary were present at the meeting which followed at the Library. The president, Mrs. Feller, was in the chair. The report of the nominating committee was given and accepted with the following members being elected for 1944: Mrs. Charles E. Porter of Redfield, president; Mrs. Keith M. Chapler of Dexter, president-elect; Mrs. Arthur J. Ross of Perry, vice president; Mrs. Howard W. Smith of Woodward, secretary; and Mrs. William V. Thornburg of Guthrie Center, treasurer. A report of thirty-one subscriptions to *Hygeia* was given.

Mrs. Edwin J. Butterfield of Dallas Center gave an excellent paper on The Doctor's Contribution to the War. (The President recommended that this paper be submitted to the Press and Publicity Committee.) Mrs. Feller then introduced the new officers, who were installed and took charge of the remainder of the meeting.

Mrs. Peter W. Beckman, Perry

## MEETING OF THE POLK COUNTY AUXILIARY

The Polk County Medical Auxiliary members met for luncheon at Younkers Tea Room, January 14, 1944. The annual meeting and election of officers followed. The new officers are: Mrs. Henry I. McPherrin, president; Mrs. Russell C. Doolittle, president-elect; Mrs. John C. Parsons, vice president; Mrs. Malcolm A. Royal, secretary, and Mrs. George H. Watters, treasurer. The new officers were installed by the retiring president, Mrs. James A. Downing.

## HOW MAY CANCER BE CONTROLLED?

1. By a prompt visit to a physician when suspicious signs or symptoms appear.
2. By each person having a complete, annual physical examination.
3. By physicians being aware of the possibility of



cancer in abnormal conditions found at the time of periodic examinations.

4. By cooperation between physician and patient in carrying out diagnostic and treatment procedures.

5. By widespread knowledge, both lay and professional, of the character of cancer, its causes, methods of spreading, the value of early diagnosis and adequate treatment, and means of prevention. —*Bulletin of the Women's Field Army, Iowa Division*, January, 1944.

### MADAME CURIE

The recent picture, *Madame Curie*, based upon Eve Curie's fine book of the same title published in 1937, has revived interest both in the great scientist and her youngest daughter's excellent biography.

In the annals of time, Marie Curie as a personality and as a scientist will stand out as magnificent and as lonely as a snow-capped mountain peak. Her life was an anti-climax of breathless joys and crushing tragedies. She was the youngest of five children of Polish parents and at a very early age was exposed to the rigors of political oppression since Poland was under Russian domination then.

Both of her parents were teachers. The mother died of tuberculosis while Marie was in her early teens. A few months before one of the sisters died of typhus. Somehow, the father managed to hold the family together and imbued in them an endless thirst for knowledge. One sister and a brother became doctors of medicine.

So that her sister might go to Paris to obtain her doctor's degree, Marie worked as a governess for three years. During this period she fell in love with an aristocratic youth whose parents would not allow him to marry the lowly governess. It was then that she took up the study of physics and chemistry and determined that science must be her life. In 1891 she went to Paris to attend the university. Her difficulties were constant. Language and faulty preparation were among the least as compared to poverty and near-starvation. Her power of concentration was such that she forgot to eat. One winter she lived only on radishes and cherries. Needless to say she had a breakdown, the first one of many which were to follow as a result of badly balanced meals and overwork.

Marie met Pierre at the university and kept him waiting a year before she married him. Pierre was thirty-seven then and well known for his scientific achievements. He was the descendant of a long line of doctors.

Theirs was one of those perfect loves which so rarely happen. Two daughters, Irene and Eve, were born to them. Irene and her husband were to capture the Nobel prize as did Marie and Pierre. Eve turned to music and writing. In the early years, the Curie home life was stripped of all but the barest necessities because both husband and wife were engaged in teaching and laboratory pursuits.

France refused to recognize Pierre as a genius, and he went through life without the fine laboratory to which he was entitled. Marie, with a lump in her

throat, accepted a handsome laboratory in his name when it was too late.

Henri Becquerel's monograph on radioactivity inspired the thesis for Marie's doctor's degree. Her workshop was a rickety old shed where the temperature stood at about 45 degrees and delicate apparatus refused to work. In 1898 she announced the existence of polonium, and in 1902, or at the end of forty-five months, she gave the world its first decigram of pure radium. In all of her efforts, she was ably assisted by her competent husband, but the actual discovery is accredited to her. It was necessary to reduce eight tons of pitchblende ore to obtain one gram of radium.

Pierre was killed in a street accident April 19, 1906, and the light of Marie's life went out. This was the severest tragedy of her life and only furious work saved her mental balance.

Although the name "Curie" spells only radium in most of our thinking, it is interesting to know that Marie designed the x-ray equipment for the traveling hospital used on the battlefields in World War I. She commandeered twenty cars from wealthy people to equip as traveling hospitals and worked tirelessly as a radiologist and taught many doctors and nurses to do the same work.

Her later years were spent in erecting and teaching in the Radium Institute in Paris. To secure funds to promote radium research, she visited many countries, including the United States where she was overwhelmed to the point of illness with praise and social events. She died in a sanitarium as a result of accumulated reaction to radium fumes and burns. Her blunt, scarred hands were mute evidence of her miraculous contribution to mankind.

Eve Curie's account of her mother's life is modest and exceedingly tender. You will brush back the tears when you read of Pierre's death. You will be constantly inspired as you read of the accomplishments, the courage, and the insurmountable odds that faced a genius who was also a woman. And if you could clasp a bit of her philosophy to you very closely, something of her spiritual victory might be born in you:

"Never let yourself be beaten down by persons or events!"

Mrs. K. M. Chapler, Dexter.

### SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:05 p. m.

WSUI—Thursdays at 9:00 a. m.

March 1- 2	American Red Cross	American Red Cross Public Information Service
March 8- 9	Common Symptoms of Gallbladder Disease	Parke M. Jessup, M.D.
March 15-16	Tonsillectomy	Frederick J. Chapman, M.D.
March 22-23	The Emergency Care of Fractures	Frank E. Thornton, M.D.
March 29-30	Obesity	James E. Whitmire, M.D.

## SOCIETY PROCEEDINGS

### Black Hawk County

The Black Hawk County Medical Society held its regular monthly meeting Tuesday evening, February 15, at the Russell Lamson Hotel in Waterloo. The social session was at 6:30 p. m., followed by dinner and the business meeting at 7:30 p. m.

S. A. Barrett, M.D., Secretary

### Clinton County

The Clinton County Medical Society met Thursday evening, February 10, at the Elks Club Rooms in Clinton. Dinner was served at 6:30 p. m., following which Lieutenant Colonel W. J. Carrington, M.C., Chief of Surgery at Schick General Hospital, addressed the group.

### Jasper County

The annual meeting of the Jasper County Medical Society was held recently at Hotel Maytag in Newton. All present officers of the Society were re-elected for 1944. Included in the group are: Dr. Raymond F. Frech, president; Dr. Leon P. Adams, vice president, and Dr. Thomas D. Wright, secretary and treasurer. All officers are of Newton. The Society, because of the increased demand for professional services and limited travel conditions, will continue to restrict its programs to routine business.

### Johnson County

The regular monthly meeting of the Johnson County Medical Society was held at Hotel Jefferson in Iowa City Wednesday, February 2, at 6:00 p. m. The usual business meeting was followed by a scientific program, which consisted of an interesting discussion, entitled Some of the More Common Lesions of the Skin; Their Diagnosis and Treatment, with lantern slide demonstration, by Ruben Nomland, M.D., Professor and Head of the Department of Dermatology and Syphilology.

R. H. Flocks, M.D., Secretary

### Keokuk County

The Keokuk County Medical Society met in Sigourney, Friday evening, January 14, at the East Side Cafe. Officers elected to serve the Society during 1944 include: Dr. Tarana J. G. Dulin of Sigourney, president; Dr. Frederick D. Walk of South English, vice president, and Dr. John Maxwell of What Cheer, secretary and treasurer. The auditing committee of the Society comprises Dr. Dell L. Grothaus of Delta; Dr. Roy G. Swinney of Richland, and Dr. Franklyn C. Perkins of Hedrick.

### Lee County

The regular quarterly meeting of the Lee County Medical Society was held at the Iowa Hotel in Keo-

kuk, Wednesday, February 9, at 3:00 p. m. The scientific program consisted of a discussion of Hypertension by George B. Crow, M.D., Burlington; a case report of Osteomyelitis Following Use of Penicillin by Robert L. Feightner, M.D., Fort Madison; and Some Obstetrical Problems by William Rankin, M.D., Keokuk. Following dinner, which was served at 6:30 p. m., Clyde A. Boice, M.D., Washington, presented a discussion of the Wagner-Murray Bill.

### O'Brien County

Members of the O'Brien County Medical Society met in Sheldon at the Arlington Hotel Tuesday, February 15, at 6:30 p. m. The guest speaker of the evening was Channing G. Smith, M.D., Des Moines, who spoke on Social Welfare.

### Osceola County

The annual meeting of the Osceola County Medical Society was held at the Court House in Sibley, Wednesday forenoon, February 16. The officers elected for the ensuing year are as follows: Dr. Earl P. Farnum of Sibley, president; Dr. Louis H. Heetland of Sibley, vice president; Dr. Herbert B. Paulsen of Harris, secretary and treasurer; Dr. Wilbur F. Thayer of Ocheyedan, delegate, and Dr. Paulsen, alternate.

### Scott County

The regular monthly meeting of the Scott County Medical Society was held Tuesday, February 1, at 6:00 p. m. at the Lend-A-Hand Club in Davenport. The guest speaker of the evening was Major Don C. Robertson, M.C., of Schick General Hospital in Clinton, who spoke on Treatment of Peripheral Vascular Diseases.

L. J. Miltner, M.D., Secretary

### Wapello County

The Wapello County Medical Society, which meets bi-monthly, held its first February meeting Tuesday, February 1, at 6:30 p. m. at Hotel Ottumwa in Ottumwa. The guest speaker of the evening was Edward D. Allen, M.D., Associate Professor of Obstetrics and Gynecology of the University of Illinois College of Medicine, who spoke on The Diagnosis and Treatment of Vaginitis.

The second February meeting was held at St. Joseph Hospital in Ottumwa, Tuesday, February 15, at 8:00 p. m. The scientific program consisted of film, entitled Varicose Veins; Their Treatment by the Modern Combined Ligation and Injection Treatment, by Herman O. McPheeters, M.D., Minneapolis, which was presented and discussed by Edward B. Hoeven, M.D., Ottumwa.



### Woodbury County

The Woodbury County Medical Society honored one of its best loved members, Dr. Hamilton S. Gillespie, at a testimonial dinner Thursday, February 24, at 6:30 p. m., at the Mayfair Hotel in Sioux City. Wives of the physicians were present for the occasion. Everett D. Plass, M.D., Professor of Obstetrics and Gynecology of the State University of Iowa College of Medicine, spoke on Recent Advances in Obstetrics.

F. D. McCarthy, M.D., Secretary

### PERSONAL MENTION

Lieutenant Commander Clark N. Cooper of the Medical Corps of the United States Naval Reserve, formerly of Waterloo, has been cited for "outstanding performance of duty" by Vice-Admiral Frank J. Fletcher, Commander North Pacific Force. The commendation reads as follows: "For meritorious service as senior officer of the U.S.S. Saint Mihiel during and subsequent to the assault on enemy-held Attu Island. Lieutenant Commander Clark N. Cooper, MC-V-S, United States Naval Reserve, was continuously on duty day and night, supervising the handling of and operating on the battle casualties received directly from the assault forces. His leadership, devotion to duty and professional skill were responsible for the excellent medical treatment received by personnel suffering from battle wounds and frozen feet. His conduct throughout was in keeping with the highest traditions of the naval service." The commendation authorizes Lt. Comdr. Cooper to pin on the Navy's "commendation ribbon," which is of myrtle green with a thin white stripe at either end.

Captain Reuben E. Almquist of the Medical Corps of the United States Army, formerly of Albert City, has received the Legion of Merit for "exceptionally meritorious conduct in the performance of outstanding services" in the Solomon Islands. His deeds were described in a communication from the United States Army headquarters in the South Pacific: "Frequently the only officer present to direct the care of casualties, Captain Almquist commanded a medical battalion's collecting company when the Japanese bombed Rendova Island on July 2. His collecting station was the only organized medical installation and he calmly and skillfully treated the wounded while bombers roared overhead. On Laiana beach and Munda sector, New Georgia, snipers frequently directed their fire at his station but he refused to permit that to interfere with the care of the wounded. On Arundel Island, Captain Almquist organized and efficiently operated a fifty bed hospital under difficult conditions."

Dr. Harry P. Moen, who recently received a medical discharge from the Medical Corps of the United States Army after serving two years as a captain in the states and overseas, has resumed the practice of medicine in West Union where he had been located for many years prior to entering military service.

Dr. Moen spoke before the members of the Sumner Rotary Club Tuesday evening, February 8, telling of his experiences while in military service.

Dr. William B. McTaggart, who has been located in Havelock for the past six years, has moved to Fort Dodge where he has become associated with Dr. Edward F. Beeh in the practice of medicine and obstetrics.

Dr. Frank O. Kershner of Clinton announced his retirement from the active practice of medicine on February 1. Dr. Kershner's present state of health caused him to retire at this time.

Dr. Harry L. Pitluck, who recently received an honorable discharge from military service, has become associated in the general practice of medicine with Dr. John H. Hovenden of Laurens. Dr. Pitluck is a graduate of the University of Arkansas College of Medicine.

Dr. Willis E. Brown has been appointed to the staff of the University of Iowa College of Medicine as Assistant Professor of Obstetrics and Gynecology. He held a similar position for the past three years on the faculty of the University of Nebraska College of Medicine, prior to which he taught at the University of Michigan Medical School.

Dr. John H. Merrick, who has been located in Story City for the past several months, has opened an office in Glenwood for the general practice of medicine.

### DEATH NOTICES

Dean, Lee Wallace, of St. Louis, Missouri, aged seventy, died February 8. He was graduated in 1896 from the State University of Iowa College of Medicine, and had long been a member of the Johnson County and Iowa State Medical Societies. A more complete obituary will be found in the History of Medicine Section of this issue.

Hofstetter, George, of Clinton, aged eighty-six, died January 28 after several years of failing health. He was graduated in 1882 from Rush Medical College, and at the time of his death was a life member of the Clinton County and Iowa State Medical Societies.

Pearson, William Wilson, of Des Moines, aged seventy-four, died February 11 of a heart ailment. He had been in ill health for the past two years. He was graduated in 1893 from the University of Michigan Medical School, and at the time of his death was a member of the Polk County and Iowa State Medical Societies. A more complete obituary will be found in the History of Medicine Section on this issue.

# HISTORY OF MEDICINE IN IOWA

*Edited by the Historical Committee*

DR. WALTER L. BIERRING, Des Moines. Chairman

DR. HENRY G. LANGWORTHY, Dubuque. *Secretary*

DR. JOHN T. MCCLINTOCK, Iowa City

DR. MURDOCH BANNISTER, Ottumwa

DR. FRANK E. SAMPSON, Creston

## LEE WALLACE DEAN, M. D.

1873-1944

### *An Appreciation*

Dr. Lee Wallace Dean, past president of the Iowa State Medical Society and former dean and professor of ophthalmology, otology, and rhinolaryngology at the University of Iowa, died at his home in St. Louis Tuesday, February 8, 1944.

In the late fall of 1893, as the writer was returning from European study to assume the chair of pathology and bacteriology, two young students, W. R. Whiteis and L. W. Dean, awaited him at the old Rock Island depot in Iowa City. After the usual greetings they expressed the desire to serve as student assistants in the new laboratory to be established. When told that the budget permitted an expenditure of only one hundred dollars, they promptly replied that it was satisfactory and they would divide it between them. Thus began for each, productive careers as teachers in the University of Iowa. They had come under the influence of those master teachers, Macbride, Calvin, and Nutting—were biologically minded—and were a great help in inaugurating these new sciences in university teaching.

Lee Wallace Dean received his B.S. degree in 1894 and his M.S. and M.D. degrees in 1896. The thesis for his M.S. degree was based on his studies of antiphtheritic serum while assisting in the first production of diphtheria antitoxin west of New York City.

Dr. Dean was born in Muscatine, Iowa, March 28, 1873, the son of Doctor and Mrs. Henry M. Dean. His two brothers also became physicians. Soon after graduation in 1896 he spent a year in postgraduate study in Vienna and other European medical centers, returning to his alma mater in 1897 to become in-

structor in physiology and anatomy and clinical assistant in the departments of ophthalmology, otology and rhinolaryngology. He rapidly gained recognition in the teaching and practice of these specialties and was appointed professor and head of the department in 1903, when only thirty years of age. He developed an extensive clinical service which soon attracted the attention of medical colleagues throughout the country.

He was a forceful lecturer and teacher with rather positive views regarding certain operative procedures. A large number of special students and assistants were trained under his tutelage and as successful practicing specialists carried his work and prestige far afield.

Upon the retirement of Dr. James R. Guthrie as Dean of the College of Medicine in 1912, Dr. Dean was named as his successor. During his deanship, a grant of two and a quarter million dollars was obtained from the Rockefeller Foundation which, when



LEE WALLACE DEAN, M.D.

matched with a similar amount by legislative appropriation, permitted the building and equipment of the new medical laboratories and University Hospital erected on the west side of the Iowa river, regarded as one of the finest physical plants of its kind in the United States and Canada. These were completed and dedicated in 1927, and during this year Dr. Dean severed his connection with the Iowa University Medical School to become professor and head of otolaryngology at Washington University School of Medicine in St. Louis and director of otolaryngology in the Oscar Johnson Research Institute.

At the Des Moines meeting of the Iowa State Medical Society in April 1913, Dr. Dean was elected



president of the Society. In the succeeding years of his residence in Iowa he always took a prominent part in State Society affairs. Upon the organization of General Hospital No. 54 at the University Hospital, following World War I, Dr. Dean was appointed Lieutenant Colonel, Medical Reserve Corps.

Dr. Dean was honored with the presidency of the leading societies in his specialty—the American Laryngological; American Laryngological, Rhinological and Otolological; the American Otolological Associations and the American Academy of Ophthalmology and Otolaryngology. He was also a fellow of the American College of Surgeons and a diplomate of the American Boards of Otolaryngology and Ophthalmology. Since 1927, Dr. Dean had served as editor of the *Annals of Otolaryngology and Rhinology* and *Laryngology*.

Dr. Dean was married to Ella May Bailey of Iowa City in 1904. He is survived by his widow; one son, Dr. Lee Wallace Dean II (also a specialist in otolaryngology); three grandchildren, Lee Wallace Dean III, David Dean, and Linda Dean; and one brother, Dr. Ray Herbert Dean of Washington, Iowa. The funeral services were held at his home in St. Louis Friday, February 11, 1944.

Two years ago Dr. Dean's former students and assistants gave a testimonial dinner in his honor at Iowa City and presented a portrait of their former chief to the University.

By his leadership in medical education, and contributions to the knowledge of his special field of medical service, Dr. Lee Wallace Dean distinctly influenced the medicine of his period.

Walter L. Bierring, M.D.

## WILLIAM WILSON PEARSON, M. D.

1869-1944



### In Memoriam

A medical Gibraltar sank silently back from whence it rose when William Wilson Pearson slept away at his home on February 11.

His annals are long and crowded with deeds for the sick and in behalf of medicine. The ideals of medicine are noble; physicians are men with the shortcomings of men; yet the profession has always struggled to live up to its high ideals. And when it has come to pass that the practice of medicine has been maintained consistently at a high moral level it is because the ethical standards have been held up and supported by such moral rocks as Dr. Pearson.

William Wilson Pearson was born October 21, 1869, in Illiopolis, Illinois. He was graduated from the Springfield high school in 1889. That year he entered the University of Illinois where he remained for one year. He was the only freshman ever elected to the captaincy of the University baseball team. The year 1890 found him enrolling as a student of medicine at the University of Michigan, from which he was graduated in 1893. He played baseball and football during his stay at Michigan and refused the captaincy of each team because he considered his professional work more important than athletics. In 1892 he was nominated for the All-American football team and was the first western man to be so honored. After his graduation from medical school, he became assistant to Dr. A. E.



WILLIAM WILSON PEARSON, M.D.

Prince at Springfield, Illinois, who had a large eye, ear, nose and throat hospital in that city. He remained with Dr. Prince for eighteen months, and then left for a year and a half of study abroad. He spent most of his time there as an enrolled student at the University of Göttingen. From Göttingen he went to Vienna to study the diseases of the eye, ear, nose and throat, and left Vienna to visit clinics in Berlin and Paris. He left the continent for England, attending clinics at the Moorefield Hospital in London and nose and throat clinics in the same city. Upon his return to America he selected Des Moines for his place to live and work, and opened an office at 417 Bankers Trust Building, December 13, 1896. He practiced in the same office until his last illness.

Soon after his arrival in Des Moines, Dr. Pearson, with seven other physicians, organized the Des Moines Pathological Society, which, in 1912, was merged with another society to form the Medical Library Club, which is functioning today. He rarely missed a meeting of either society. At various times he was president of local medical societies. He was a founder of the American College of Surgeons and a member of its Board of Governors since the organization was founded in 1913. He served as vice president in 1929. He was a life member of the College and a contributor to the endowment fund. He was vice president of the American Academy of Ophthal-

mology and Otolaryngology (1939); was for a time councilor of the Fifth District of the Iowa State Medical Society; and was, from 1909 until the closing of its doors, the dean of Drake University Medical School. In 1915 he became the first president of the Iowa State Tuberculosis Association. In 1917 he was made a member of the Iowa Council of National Defense; in 1918 he served as state chairman of the Council and was appointed medical aide to the Governor of the State of Iowa with the rank of lieutenant, being promoted to major August 30, 1918, in which capacity he served until honorably discharged in January, 1919.

#### THE APPRECIATION OF HIS COLLEAGUES

Dr. Pearson was professionally dependable; he never compromised; with him the patient's interest came first.—*Lawrence E. Kelley*

Dr. Pearson insisted on honest medical service and a reasonable fee.—*Frank A. Ely*

To me Dr. Pearson's outstanding quality was his utter devotion to his specialty and his fairness and honesty toward his patients.—*Charles C. Walker*

Dr. Pearson was one of my first medical teachers. He prodded us continually to do better and better work, and watched us to see that we did just that.—*Edwin B. Winnett*

Dr. Pearson was to me a man of untiring and persistent diligence in his professional medical service, a man of high motives, a man of pure scientific ideology.—*Harootune A. Minassian*

Iowa medicine has lost an inspiring leader; both old and young felt the impress of his stimulating personality.—*Walter L. Bierring*

I admired Dr. Pearson's ability to discuss any phase of medical science.—*Robert L. Parker*

One of Dr. Pearson's traits for which I shall always remember him was his kindness in helping younger men establish a practice.—*Lee F. Hill*

His honesty and integrity with himself, his patients, his associates, and his fellow practitioners were always above even the shadow of a question.—*James A. Downing*

His intense and unflagging interest in medicine in its various branches and his willingness to recognize the latent ability in the younger practitioner who showed promise of development are the two notable traits that I admired in Dr. Pearson.—*Tom B. Throckmorton*

As friend, colleague, business associate and companion at medical meetings, I always found Dr. Pearson a stimulating personality and honorable gentleman.—*Oliver J. Fay*

Dr. Pearson was a personal and professional friend for over forty years. I believe I would call his outstanding characteristic his constant maintenance of the high ideals of medicine.—*Addison C. Page*

To me Dr. Pearson meant an able and sympathetic counsellor, but I shall cherish most the memory of many long drives into the country hunting for a hill-top view to enjoy while we explored the ample lunch basket so generously provided for the occasion by Mrs. Pearson.—*Charles M. Werts*

From my first day's association with Dr. Pearson I was conscious of his immense and unflagging sense

of duty toward his patients. No personal or family interests were ever permitted to interfere with his professional duties and for this reason, and rightly, he enjoyed the complete confidence of all who came under his care.—*Walter Kirch*

It has been stated that "knowledge plus a willingness to work makes a successful man." Dr. Pearson possessed these characteristics in a profound degree. His devotion to duty and to his profession should be an inspiration to every physician.—*Thomas A. Burcham*

His ability as a physician was never disputed and he practiced that profession just as he lived, with devotion, honesty and without malice. His patience was tried only by those who doubted his sincerity. We shall miss forever his generous help, his wise counsel, and above all his kind words of encouragement.—*Fred Sternagel*

The characteristic in Dr. Pearson's make-up which impressed me most was the generous attitude which he invariably assumed toward his patient.—*Martin I. Olsen*

Dr. Pearson—always "Bill" to me—left a heritage worthy of emulation. His professional life fulfilled in every way his Hippocratic oath. He gave to his profession and to his patients his all. To his friends he personified geniality and hospitality, a man's man—too big, too fine to stoop to the petty things of life. I, with many others, shall cherish his memory and count as my good fortune the opportunity to have been his friend.—*Gordon F. Harkness*

There was nothing small or mean about Dr. Pearson. He was a man's man in the best sense of that term. But along with a masterful went a most generous heart; he was kindness itself as a physician, a host, or a friend. We all regret his passing and will revere his memory.—*Julius S. Weingart*

Only those who were associated intimately for a long time with Dr. Pearson—his wife, his many close friends, his office force, people who lived on his farms, and those who stood by during his last losing fight—knew and fully appreciated the sterling material that activated his being.

*"Sunset and evening star,*

*And one clear call for me!*

*And may there be no moaning of the bar*

*When I put out to sea."*

Daniel J. Glomset, M.D.

#### REFRESHER COURSE IN OTOLARYNGOLOGY

The Department of Otolaryngology of the University of Illinois College of Medicine announces its spring refresher course, to be held at the College in Chicago, March 20 to 25, 1944. The course will be largely didactic, but some clinical demonstrations have been included. It is intended primarily for specialists, who under existing conditions, are able to devote only a brief period to postgraduate review study. The fee is \$50.00. Registration will be limited. In letter requesting application, state school and year of graduation; also give details concerning specialty training and experience. Address Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago, Illinois.



# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**ELEMENTS OF MEDICAL MYCOLOGY**—By Jacob Hyams Swartz, M.D., assistant professor of dermatology, Harvard Medical School and Postgraduate School; dermatologist, Massachusetts General Hospital. Introduction by Fred D. Weidman, M.D., professor of dermatological research, University of Pennsylvania. Grune & Stratton, Inc., New York, 1943.

**OFFICE TREATMENT OF THE NOSE, THROAT AND EAR**—By Abraham R. Hollender, M.D., associate professor of laryngology, rhinology and otology, University of Illinois College of Medicine; otolaryngologist, Research and Educational Hospitals, Chicago, Illinois. The Year Book, Publishers, Inc., Chicago, 1943. Price, \$5.00.

**URINE AND URINALYSIS**—By Louis Gershenfeld, Ph.D., professor of bacteriology and hygiene and director of the Bacteriological and Clinical Chemistry Laboratories at the Philadelphia College of Pharmacy and Science. Second edition, thoroughly revised. Lea & Febiger, Philadelphia, 1943. Price, \$3.25.

**FRACTURES AND DISLOCATIONS for Practitioners**—By Edwin O. Geckeler, M.D., fellow of the American College of Surgeons, fellow of the American Academy of Orthopaedic Surgeons, diplomate of the American Board of Orthopaedic Surgery. Third edition. The Williams and Wilkins Company, Baltimore, 1943. Price, \$4.50.

**BACKACHE AND SCIATIC NEURITIS**—By Philip Lewin, M.D., associate professor of bone and joint surgery, Northwestern University Medical School; attending orthopaedic surgeon, Cook County Hospital; attending orthopaedic surgeon, Michael Reese Hospital; professor of orthopaedic surgery, Cook County Graduate School of Medicine, Chicago; Lieutenant Colonel, Medical Corps, U. S. Army. Lea & Febiger, Philadelphia, 1943. Price, \$10.00.

**THE MIND OF THE INJURED MAN**—By Joseph L. Fetterman, M.D., assistant clinical professor of nervous diseases, Western Reserve University School of Medicine, Cleveland, Ohio. Industrial Medicine Book Company, Chicago, 1943. Price, \$4.00.

**RECONSTRUCTIVE SURGERY OF THE EYELIDS**—By Wendell L. Hughes, M.D., Hempstead, New York. The C. V. Mosby Company, St. Louis, 1943. Price, \$4.00.

**OUT OF THE TEST TUBE**—By Harry N. Holmes, Ph.D., professor of chemistry at Oberlin College; 1942 president of the American Chemical Society. Fourth edition, revised and expanded. Emerson Books, Inc., New York, 1943. Price, \$3.00.

**THE 1943 YEAR BOOK OF GENERAL MEDICINE**—Edited by George F. Dick, M.D.; J. Burns Amberson, Jr., M.D.; George R. Minot, M.D.; William B. Castle, M.D.; William D. Stroud, M.D.; George B. Eusterman, M.D. The Year Book Publishers, Chicago, 1943. Price, \$3.00.

**THE PRINCIPLES AND PRACTICE OF OBSTETRICS**—By Joseph B. DeLee, M.D., formerly professor of obstetrics and gynecology, emeritus, University of Chicago, consultant in obstetrics, Chicago Lying-in Hospital and Dispensary, consultant in obstetrics, Chicago Maternity Center; and J. P. Greenhill, M.D., attending obstetrician and gynecologist, Michael Reese Hospital, obstetrician and gynecologist, associate staff, Chicago Lying-in Hospital, attending gynecologist, Cook County Hospital, professor of gynecology, Cook County Graduate School of Medicine. Eighth edition, entirely reset. W. B. Saunders Company, Philadelphia, 1943. Price, \$10.00.

**ESSENTIALS OF SYPHILOLOGY**—By Rudolph H. Kampmeier M.D., associate professor of medicine, Vanderbilt University School of Medicine; in charge of the Syphilis Clinic and visiting physician to Vanderbilt University Hospital; with chapters by Alvin E. Keller, M.D., and J. Cyril Peterson, M.D. The J. B. Lippincott Company, Philadelphia, 1943. Price, \$5.00.

**METHODS OF TREATMENT**—By Logan Clendening, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals; and Edward H. Hashinger, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals, attending physician, St. Luke's Hospital, Kansas City, Missouri. Eighth Edition. C. V. Mosby Company, St. Louis, 1943. Price, \$10.00.

## BOOK REVIEWS

### INTERNAL MEDICINE IN GENERAL PRACTICE

By Robert Pratt McCombs, Lieutenant, Medical Corps, United States Naval Reserve; recently instructor in internal medicine for the Statewide Postgraduate Program of the Tennessee State Medical Association. On leave of absence from the staffs of the Pennsylvania Hospital, the Abington Memorial Hospital and the Jefferson Medical College, Philadelphia. W. B. Saunders Company, Philadelphia, 1943. Price, \$7.00.

Occasionally a scientific book presents itself which by its content and style attracts the reader with the interest and attention that only fiction receives. Such is McComb's book.

The author, now in Naval service, formerly was concerned in postgraduate work in Tennessee. He could not find a textbook which concisely integrated expository descriptions of disease with newer methods of physical and laboratory diagnoses, and this, with the former general practitioner students in mind, he planned to do. He assumed that his readers had had fundamental training and he wished to modernize their attack in the field of internal medicine.

It may be said that the plan was sound and satisfactorily accomplished.

Long descriptions of diseases are avoided in the book, but the significant features of the various system diseases and specific entities are included. These descriptions are supplemented by well conceived diagnostic tables, and the ordinary page content is varied by the liberal use of heavy point type and italicized words and sentences to accentuate important features. Numerous cuts and occasional colored pages are used. Particularly to be mentioned are the outlines for procedures in relation to presenting symptoms, the well written and definite paragraphs of treatment and the occasional pertinent discussions of physiologic and pathologic considerations of certain system diseases.

As a book for the general practitioner who wishes a ready and useful reference to subjects concerned in internal medicine, the reviewer knows of no single volume which accomplishes its purpose as well as this one. The foreword by Ross T. McIntire, Surgeon General to the Navy, states that "The book has a place in naval medicine," and it should have a greater attraction for the civilian physician.

R. N. L.

## THE ANATOMY OF THE NERVOUS SYSTEM

By Stephen Walter Ranson, M.D., Ph.D., formerly professor of neurology and director of Neurological Institute, Northwestern University Medical School, Chicago. Seventh edition, revised. W. B. Saunders Company, Philadelphia, 1943. Price, \$6.50.

In 1923 I had the privilege of hearing lectures by Dr. Stephen Walter Ranson on the anatomy of the nervous system and studied his text in an earlier edition. As I review the seventh edition of this book I find a much larger volume and one incorporating new material on the structure and functions of the nervous system. I find it presented with the same clearness and vigor that characterized his lectures.

The brain cannot be regarded as a simple organ. It has an irregular, contorted contour both without and within; its parts defy ordinary descriptive methods. The names of the brain structures are myriad and an encyclopedic memory is needed to master them. Dr. Ranson spent his best years seeking to unravel the confusion of the central nervous system and convey his knowledge to those wishing to know. He sought the dynamic approach; he was not satisfied with a static description. Every structure had a developmental and a functional signification.

The nervous system as presented in this seventh edition is readily adaptable to the needs of the medical student; it is a fine reference work for the practitioner; and the neurologist will find no better work for a refreshing review. While it is by necessity somewhat complex, it could not be made more simple. It could not be more condensed without sacrificing its completeness. It has many illustrations which are well labeled.

In this, his last book (Dr. Ranson's death preceded this publication), he has placed before the medical profession a monumental volume—a book reflecting the vigor and enthusiasm of the author, and presenting the nervous system so clearly that "he who runs may read."

H. B. H.

## CONVULSIVE SEIZURES

## How to Deal with Them

A manual for patients, their families, and friends by Tracy J. Putnam, M.D., professor of neurology and neurosurgery, College of Physicians and Surgeons, Columbia University; director of services of neurology and neurosurgery, Neurological Institute of New York. J. B. Lippincott Company, Philadelphia, 1943. Price, \$2.00.

This manual contains sound, modern information in nontechnical language, conveniently arranged for the layman to read and refer to afterwards for particular points. It is a balanced, fair discussion of the problem and offers good mental hygiene. The tone of the book is helpful and encouraging.

A physician may safely refer his patients and their friends to this book for their myriad questions on the cause of epilepsy, its outlook, rationale of

treatment, heredity, and advice on occupation, marriage, and legal restrictions for the patient. Dr. Putnam suggests further reading for those especially interested, referring particularly to the writings of Dr. Lennox.

N. D. R.

## PATHOLOGY AND THERAPY OF RHEUMATIC FEVER

By Leopold Lichtwitz, M.D., Lately, chief of the medical division of the Montefiore Hospital, and clinical professor of medicine, Columbia University, New York City. Foreword by William J. Maloney, M.D., consulting neurologist to the City Hospital; formerly professor of nervous and mental disease, Fordham University, New York City. Edited by Major William Chester, M.C., A.U.S. Grune & Stratton, Inc., New York, 1943. Price, \$4.75.

This book by Professor Lichtwitz interestingly and convincingly presents rheumatism as a manifestation of allergy. The author's interpretation and correlation of symptoms and findings of the rheumatic diseases with allergy reveal a wealth of clinical and scientific knowledge. According to the author, the rheumatic syndrome comprises diseases of defense rather than of invasion.

The title of the book is misleading, because the scope goes beyond the discussion of rheumatic fever. The author presents a classification and analysis of the various types of rheumatic and nonrheumatic arthritis, describes the pathologic changes which lead to alteration of function and structure, and discusses the therapeutic measures employed both in the past and at present. Each chapter cites numerous references.

The book is well worth reading because it will give any physician a better understanding of rheumatic fever and chronic rheumatoid arthritis. The organization of the book could be improved. The author might have reached the wide audience this presentation deserves if various phases of the work were prepared for publication in the current medical literature.

R. L. J.

## NERVOUS INDIGESTION AND PAIN

By Walter C. Alvarez, M.D., professor of medicine, University of Minnesota (Mayo Foundation); consultant in the division of medicine, The Mayo Clinic, Rochester, Minnesota. Paul B. Hoeber, Inc., New York, 1943. Price, \$5.00.

This is a valuable work and should be read by anyone connected with medicine regardless of his particular specialty.

From his wealth of experience Alvarez shows the importance of questioning a patient closely and points out the fact that many diseases, for example angina pectoris, cannot be diagnosed by any physical means but can be by an intelligent history. The



author also realizes that people do have nervous systems and that these are frequently responsible for their ills. Regardless of how we feel about the so-called neurotic patient, we must remember that this patient is ill and does need our help and guidance and should not be carelessly dismissed labeled as a "neuro." Neurosis does exist and it requires treatment, but the treatment should consist of an intelligent explanation of his condition to the patient instead of a casual dismissal with a bottle of pink pills.

M. J. R.

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### BLOOD GROUPING TECHNIC

By Fritz Schiff, M.D., late chief of the department of bacteriology, Beth Israel Hospital, New York; and William C. Boyd, Ph.D., associate professor of biochemistry, Boston University School of Medicine. Interscience Publishers, Inc., New York, 1942. Price, \$5.00.

Three previous editions of this book appeared in German, the last being published in 1932, written by the senior author. Dr. Boyd assisted Dr. Schiff in writing this new edition, and then completed it following Dr. Schiff's death. Boyd states that the book makes no pretense to completeness; he has attempted to give only the technics which are tried and true.

The volume is divided into three main divisions. The first division discusses theoretic foundations briefly. The second discusses the general technic of blood group investigations. The third takes up the special applications of blood grouping technics. The material in the book has been carefully outlined, using a numerical system. The table of contents follows this outline and is unusually complete. The book is recommended as a useful reference for medical libraries and for those especially interested in the clinical or medicolegal aspects of hematology.

R. F. B.

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### ESSENTIALS OF DERMATOLOGY

By Normas Tobias, M.D., senior instructor in dermatology, St. Louis University; assistant dermatologist, Firmin Desloge and St. Mary's Hospitals; visiting dermatologist, St. Louis City Sanitarium and Isolation Hospital; fellow American Academy of Dermatology and Syphilology; diplomate, American Board of Dermatology and Syphilology. Second Edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$4.75.

The popularity of this compact manual of 497 pages on dermatology has necessitated the publication of a second edition within the space of less than three years. This edition has been thoroughly revised and brought up to date, and it reflects the abundant experience and teaching ability of its author. All the advances and newer facts in the treatment and etiology of skin diseases have been incorporated; and while military dermatology is not

treated separately, those diseases affecting military personnel, such as the mycotic and parasitic diseases, the pyodermas and plant dermatitis, are lucidly discussed under their proper headings.

The common skin diseases are presented with much clarity and surprising detail, while reference is made to the rarer dermatoses enabling the reader to consult the more comprehensive texts for fuller particulars. The subject matter is logically arranged and each chapter is headed by an introductory, general consideration of the material which follows. Treatment is emphasized. It is sound and practical and easily followed by the general practitioner. Many good prescriptions and therapeutic hints, both medicinal and physical, are incorporated.

The section on syphilis is especially praiseworthy and covers 44 pages devoted to a complete description of the disease and every modern method of treatment. An unusual feature is a discussion of accidental acquisition of lues by the physician, through pin and needle pricks incurred while treating patients. The avitaminoses and endocrine disturbances are well handled. Two other valuable features are indications for and methods of use of the sulfa drugs in dermatology and a table of normal values in blood chemistry. Throughout the book the relationship of skin disturbances and systemic diseases is stressed.

The volume is excellently and fully illustrated and indexed. The typography is clear. This book is recommended to the medical student and the general practitioner as a trustworthy guide, and to the specialist as a convenient vade mecum.

K. J.

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### THE 1943 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY

Edited by Charles F. Painter, M.D., orthopedic surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. The Year Book Publishers, Chicago, 1943. Price, \$3.00.

The author has devoted two-thirds of this volume to orthopedic surgery and one-third to industrial surgery. He offers an excellent opportunity to the general practitioner to inform himself regarding the abundant literature of these specialties published during 1943. The book will be valuable to the younger surgeons who are interested in the use of the sulfonamide drugs in cases of compound fractures and osteomyelitis. It stresses the importance of internal and external fixation in the treatment of fractures; and last but not least, the treatment of infantile paralysis is given due consideration.

The section on industrial surgery contains articles on the training of physicians for service in industrial plants, on problems of organization, fatigue, respiratory and cardiac conditions, and on the specific hazards of industrial work.

This volume will be a valuable addition to any hospital library.

K. R. W.







*University Hospitals  
State University of Iowa*

# The JOURNAL

of the

## Iowa State Medical Society

VOL. XXXIV

DES MOINES, IOWA, APRIL, 1944

No. 4

### *Members of the Iowa State Medical Society:*

We are pleased to present to you this second College of Medicine issue of our State Medical Journal. The faculty responded so generously to the request of your Editor that we were compelled to return a number of papers because of the limited space.

So many changes have occurred since our first issue appeared last April that a brief summary seems timely. Several more of our younger staff members are now in the armed forces. Both interns and residents are "rationed" and their respective terms of service reduced to nine months. The greatly depleted staff makes it very difficult to maintain desired standards in medical education.

In July most of the men students donned the uniform of the Army or the Navy. In December the second class under the continuous program was graduated. About the same time, the class that graduated in February, 1943, completed its internship and most of those men are now on active duty. A new class entered in January of this year; all but fourteen of its members are in uniform. The military forces will require a minimum of 80 per cent of all future admissions, and this will leave only a very few places for women and men in Class 4-F. Only students who pass the A-12 or V-12 examinations will be eligible for appointments under the Army or the Navy programs.

To our alumni and fellow members in the armed services the members of the faculty extend cordial greetings. They desire that you be assured of their plans for refresher and postgraduate courses for those desiring them upon their return to civilian life.

Kind personal regards to all.

Sincerely,

E. M. MacEwen, M.D., Dean



*Editor's Note:* This is the second all-Iowa City number. Because of the success of the similar edition a year ago, the Publication Committee asked the University if it would again be responsible for an entire issue. The invitation was promptly accepted and the Journal again takes pleasure in presenting these outstanding articles from Iowa's own medical school.

## PERIARTHRITIS OF THE SHOULDER JOINT\*

ARTHUR STEINDLER, M.D.

### THE PATHOLOGIC CONCEPT OF SUBDELTOID BURSITIS

Following the description of Duplay in 1872, which carried only a general clinical concept, certain concrete pathologic facts were established.

Codman,<sup>1</sup> in 1911, found that the lesion most often involves the structures of the floor of the bursa, especially the supraspinatus tendon.

Then, it was found that tears in these tendons produced necrobiotic changes and that these, in turn, were followed by deposits of irregular accumulations of lime salts (Wrede and Brickner<sup>2</sup>).

It was noted that these calcareous deposits in the degenerated tendon may perforate into the bursa itself, where they form visible accumulations. Most often they come from the supraspinatus tendon, but they may also arise from the infraspinatus, teres minor, or even the subscapularis tendon.

It was Codman who showed that the tears may be either incomplete involving only part of the thickness of the tendon, or complete producing a more or less wide communication with the joint. Codman emphasized these partial ruptures of the tendon which do not perforate the entire thickness of the tendon, and believed that these rim rents or incomplete ruptures are much more commonly the cause of sore shoulders and that they all occur in degenerated tendons.

On the basis of these biopsy and anatomic findings, one may classify periartthritis as follows:

1. The lesions of the structures of the floor of the bursa. (Fig. 1.)

#### B. CHANGES OCCURRING IN THE MUSCULO-TENDINOUS CUFF ITSELF

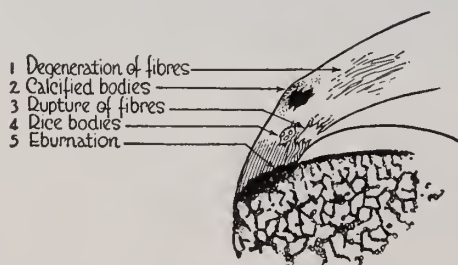


Fig. 1.

(From E. A. Codman, "The Shoulder," 1934, p. 74.)

\*From the Department of Orthopedic Surgery.

a. Tear of supraspinatus tendon, complete and incomplete. The complete ruptures of the supraspinatus tendons communicate with the joint.

b. The incomplete ruptures involve neither the whole width nor the whole thickness of the supraspinatus tendon; they appear as so-called rim rents where, according to Codman, only a few fibers on the joint side together with the synovial reflections may be torn off, or some of the central fibers may be parted without tearing either the joint side or the bursal side of the tendon. (Fig. 2.)

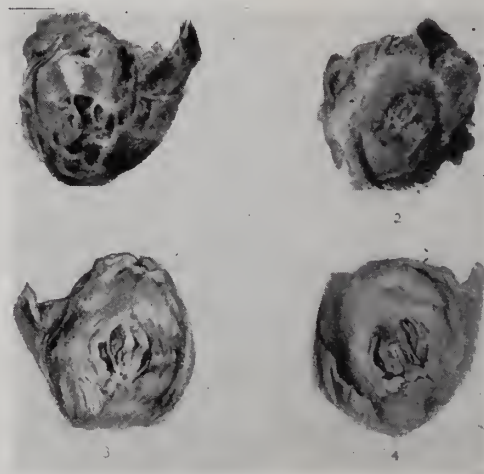


Fig. 2.

(From E. A. Codman, "The Shoulder," 1934, p. 110.)

2. The calcified deposits are within the tendon and raise an elevation underneath the bursa. Occasionally, they are found in the tendon of the subscapularis and of the infraspinatus muscle. (Fig. 3.)

Spontaneous rupture into the bursa is the rule, and this presents a process of healing. The calcium particles become absorbed in a fibrinous liquid. The calcareous deposits, usually situated in the supraspinatus muscle, give distinct x-ray shadows at the head of the humerus. These shadows are separated from the humeral head and have no definite bone structure, and they form disk-like particles or occur in large plaques, or penetrate diffusely into the tendon.

3. The frozen shoulder type is an extensive tendinitis of the entire cuff resulting in numerous adhesions; they may fill the entire bursa.

4. The bursa itself may develop a primary villous bursitis. On opening the bursa one sees



Fig. 3.

strands of fibrous tissue crossing the space, some attached to the floor or ceiling and some floating free in the bursa.

5. Pathologic changes in the greater tuberosity may be readily detected in the roentgenogram.

We often see osteo-arthritis with absorption of the bone underneath in form of subchondral cysts. Eburnation is seen frequently at the insertions of the tendons and is not uncommonly an incidental x-ray finding.

#### CLINICAL PATHOLOGY

Let us remember that the outstanding diagnostic criteria are the mechanogenesis, the location and nature of pain and tenderness, the type of restriction of motion, and secondary muscle atrophy.

##### 1. Complete rupture.

a. Constitution, age, and occupation prepare the ground for the rupture on the basis of degenerative changes in the tendon. An adequate injury, a fall, or blow usually brings out the symptoms. A pre-existing, incomplete rupture may become complete; that is, communicating with the joint, on lesser trauma such as a wrench or strain. Strenuous occupation naturally favors the rupture. Hence, the prevalence in men, only 8 per cent are women; and hence the fact that young persons below twenty-five years of age seldom show complete rupture of the tendon, since the tendon is stronger than its bony insertion and stresses which would otherwise break the tendon would cause fracture of the bone or separation of the tuberosity.

b. The spontaneous pain so common in this condition exacerbates at night and radiates in the territory of the neck and of the lateral and median cutaneous brachii. While it is the outstanding sign, it has nothing pathognomonic for this condition; neither has the tenderness of the bursa over the deltoid and along the edge of the acromion process. The diagnosis rests much more on the interpretation of circumscribed areas of pressure pain. These pressure points are, in rupture of the tendons, located over the greater and lesser tuberosity.

We find the pain in conjunction with a depression or a groove or an eminence at the point of insertion of this muscle, deep under the acromion. This represents the tear.

When lime deposits are in the tendon, they produce a painful eminence over the greater tuberosity in conjunction with Dawbarn's sign, and this pressure pain is significant for a localized sub-bursal lesion.

The most important point is to find a tender, rotating point which disappears under the acromion with a crepitus and a painful jog as the arm is abducted. However, this is not characteristic only for rupture of the supraspinatus muscle; it is likely to appear also with other lesions affecting the shoulder joint. (Fig. 4.)

FIGURE 42. TIP OF FINGER PRESSING ON EMINENCE AND ON SULCUS

The plane of this diagram is halfway between the coronal and sagittal. It is, perhaps, the most important diagram in the book for the reader, entirely to understand, for it is the ability to put the finger in this position which enables one to make the clinical diagnosis of rupture of the supraspinatus tendon. The dotted line represents the contour of the bursa. Compare this with Figure 41, which shows the contour of the bursa when filled with the calcified material, and also with Plate II, Fig. 3, which shows a large calcified deposit in exactly the situation in which the rupture lies in this diagram. In this one the sulcus is immediately under the tip of the finger and the eminence just external to it, but in Figure 3 the eminence would be just under the finger. Therefore, as explained on page 198, the tender point in a case of rupture is represented by a depression, but in cases of calcified deposit, by an eminence at the corresponding position.

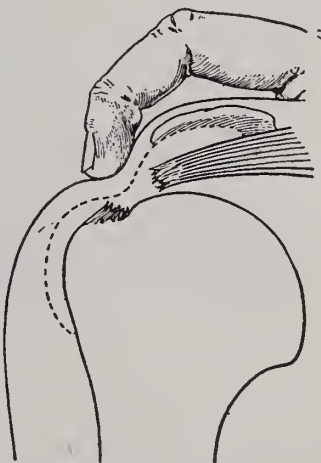


Fig. 4.

(From E. A. Codman, "The Shoulder," 1934, p. 149.)

c. The type of restriction of motion is significant. Inability to raise the arm actively is a constant symptom. Pain on motion is marked when the arm is moved in a certain direction; namely, in abduction and outward rotation, but the pain on abduction may disappear after abduction beyond the horizontal position since the local lesion slides under the acromion and is no longer acces-



sible to palpation (Dawburn's sign). This is the "winch and jog" to which Codman refers.

The calcareous deposits which are found in the x-ray picture penetrate into the bursal sac and may fill it without necessarily producing inflammation of the bursa itself. They produce a definite, tender, circumscribed point located over the groove, and this tender point, just as in the supraspinatus tear itself, disappears when the arm is abducted. Then abduction can proceed again from the horizontal to the perpendicular position. The pain simply occurs again when the arm is lowered from the vertical position and approaches the same angle.

2. Incomplete rupture of the supraspinatus muscle.

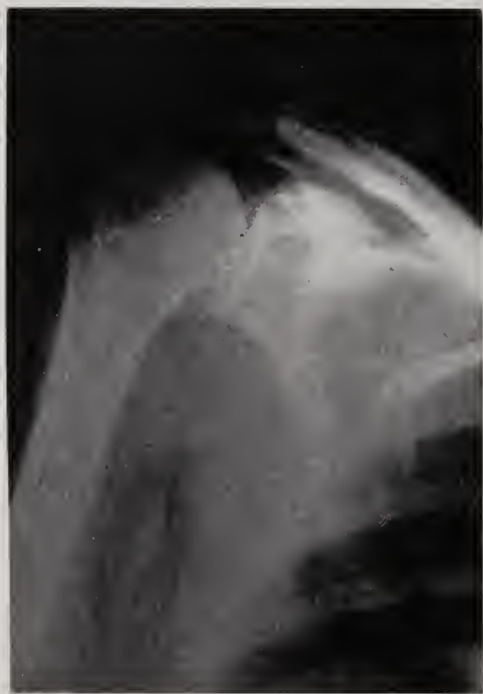


Fig. 5.

Codman states that the incomplete rupture of the supraspinatus muscle accounts for the majority of minor shoulder disabilities. Even in a case in which only a few fibers of the supraspinatus muscle are ruptured the inability to raise the arm is pronounced, because the supraspinatus muscle, which is essential for initiating the abduction of the arm, cannot contract without pain. There is, of course, no sharp anatomic distinction between complete and incomplete rupture, but the practical point is that the cases of complete rupture never recover completely unless the tendon is sutured, while the cases of incomplete rupture heal in a natural manner.

### 3. Bursitis.

Primary bursitis of the subacromial bursa probably occurs less often than the secondary bursitis which follows injuries to the musculotendinous cuff, especially ruptures of the infraspinatus muscle, although the clinical symptoms may not arise until the bursa is involved.

Secondary bursitis following these supraspinatus injuries results in adhesions between roof and floor of the subacromial bursa, involving all its portions, as well as necrotic changes and inflammatory thickening of the bursa and effusion. The bursa has a great capacity for the formation of protective adhesions which may later disappear. Probably the most common immediate cause is the perforation of calcium deposits into the bursa from below. Clinically, the involvement of the bursa also produces three cardinal signs; namely, pain, tenderness, and restriction of motion; and x-ray examination often reveals the presence of a calcium deposit (Fig. 5). From the diagnostic point of view, however, there is this difference: First, the spontaneous pain is less easily controlled and nightly exacerbations are more acute because any movement of the arm will bring them about. Second, the tenderness is distributed over the entire bursa, not discretely over a point at the greater tuberosity as in the pure rupture of the supraspinatus muscle. Third, motion is more restricted than in the latter condition. Forward and backward swing is still more or less free, but abduction is limited from the beginning and not only when the point is reached where the tendinous gap or the localized deposits slip under the acromion. The forward bending test with the arm hanging down is positive. There is no definite Dawburn or Codman sign unless the ruptured supraspinatus tendon produces this sign at the same time.

#### TREATMENT

##### 1. Conservative treatment.

Certain types of periarthritides of the shoulder joint can be treated successfully by conservative treatment, and others require operative treatment. The cases of bursitis designated for conservative treatment and not to be operated upon are the following:

a. The treatment of acute cases is fixation in splint or plaster cast, physiotherapy or x-ray treatment. In addition, one may give aspirin or bromides. Rest is usually obtained with the arm in abduction position.

b. In spasmodic cases, when the spasm is the chief cause of limitation of motion, the course of treatment is again conservative. Here also belong the more acute adhesive cases where adhesions are still more or less plastic.

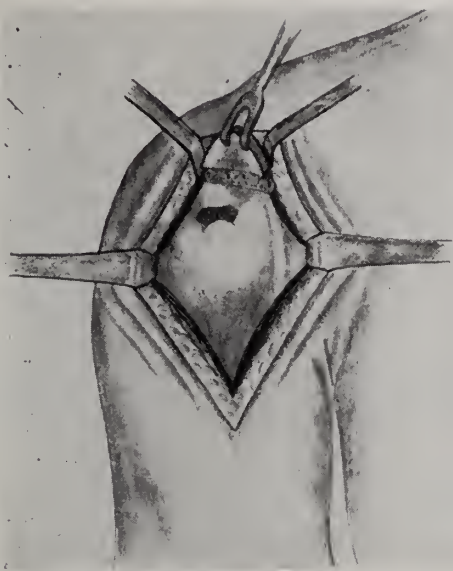


Fig. 6.

c. In the adhesive type of case with solitary adhesions, the question of breaking up adhesions arises. We do not favor manipulation as a rule in these cases; although it is variously advised, we would hesitate to recommend the procedure. We much prefer gradual stretching, even if it does involve a rather prolonged after-treatment.

d. The not very frequent cases of spontaneously disappearing deposits should also be treated conservatively.

In general, the conservative treatment consists of rest and immobilization alternating with passive mechanotherapy and the application of heat. There are three additional measures applicable with advantage in the early stages.

The novocain infiltration is useful for pain and for painful contractions in the early treatment of peri arthritis of the shoulder. These infiltrations have been used with good results by Haggart and Allen, by Haldeman and Soto-Hall, as well as by Smith-Petersen. The injection consists of 15 to 20 cubic centimeters of 1 per cent novocain without adrenalin. At the moment of the injection there is a sharp pain but sedation is rapid. If necessary, the injection is repeated once or twice.

Failing to obtain relief by novocain injection, one may produce a needle laceration of the calcified tendon, as advocated by Milgram. Multiple punctures with a needle give good results, and they are due to the fact that these lacerations produce a hyperemia in the bursa.

Relief is also obtainable in acute phases by injections or irrigations of the bursa. Patterson and Darrach are the exponents of this method. Under local anesthesia the bursal sac is penetrated and

often one is able to suck out liquid into the syringe. A second needle is introduced into the greater tuberosity below the level of the acromial articulation in the direction of the superior facet of the greater tuberosity. With the needle in place, a physiologic salt solution is injected, 40 to 60 cubic centimeters, until it finally becomes clear.

Radiotherapy is coming more into the foreground for the treatment of pain in peri arthritis of the shoulder. Mustakallio<sup>3</sup> reports 113 cases—acute, chronic, traumatic—of which a total of 71, or 63 per cent, were entirely cured after six months by x-ray treatment. Similarly, de Araujo and Osborne<sup>4</sup> report 14 cases of peri arthritis and bursitis with doses of 100 to 120 roentgen units, application varying between six and twelve minutes, with excellent results.

## 2. Operative treatment.

Cases which require operative treatment are the following:

a. The cases of adhesive bursitis with broad adhesions, the so-called frozen shoulders, which do not yield to conservative methods require incision of the bursa and division of the adhesions.

b. The cases of chronic nonadhesive bursitis are those in which the surface of the bursa is very irregular due to chronic thickening and nictitating folds, characterized by marked crepitus and jerky motion of the shoulder. Here an exploratory incision should be made; the offending irregularity should be removed, or the entire bursal sac taken out. Thickened folds, small osteophytes, and calcareous deposits at the base of the bursa can be properly dealt with.

3. In contrast to the bursitis, tendinous tears



Fig. 7a.



are distinctly localized lesions and offer definite mechanical obstacles. Unless they repair themselves spontaneously, the indication is the open operation. Only the partial ruptures of the supraspinatus tendon will go on to healing; total ruptures are practically all operative problems. We prefer the so-called sabre-cut incision and carry it well backward, following the advice of Philip Wilson. It is necessary, however, first to remove an ample portion of the acromion in order to gain access to the insertion of the supraspinatus tendon. If a rupture is present, it can be seen as a gap in the capsule through which the articular cartilage covering the head of the humerus appears (Figs. 6 and 7).

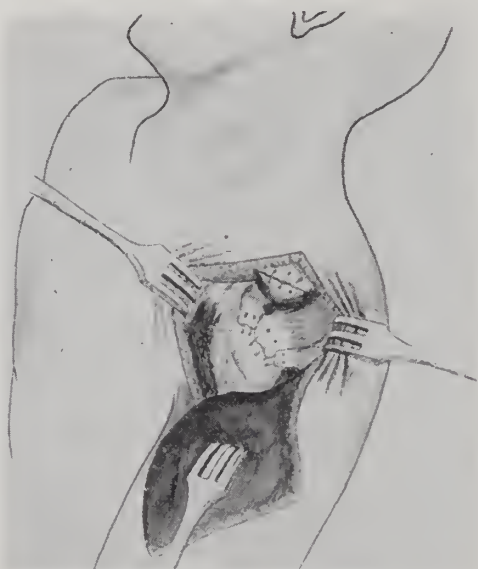


Fig. 7b.

The after-treatment varies only slightly from that in other conditions comprising scapulohumeral arthritis. It begins in manipulative cases a very few days after manipulation, and in operative cases as soon as the wound is closed. In cases of tendon suture it begins a few weeks after the operation. If the arm is to be brought up by splints, one must see that the position of abduction and outward rotation is changed only gradually.

Our experiences with the operative treatment of peri-arthritis of the shoulder joint, summarized by Dr. F. E. Kugler, up to June, 1941, are as follows:

In the cases of supraspinatus tears with or without calcified deposits, the results on the whole were good in 80 per cent of the cases. The standard for good results was no pain and free abduction in the scapulohumeral joint to 90 degrees or more.

Our conclusions were similar to those already reported by other authors; namely, that the best

results are obtained in cases of complete rupture of the supraspinatus tendon. Next are the cases of calcified deposits which persist in the bursa and do not become absorbed.

Operative results in excision of the bursa, however, are much less encouraging; there were 50 per cent good and 50 per cent poor results. Here, again, we find that better operative results are obtained by complete excision of the bursa than by mere freeing of the adhesions.

#### REFERENCES

1. Codman, E. A.: Stiff and painful shoulders. Boston Med. and Surg. Jour., clxv:1911.
2. Wrede, and Brickner, W. M.: Prevalent fallacies concerning subacromial bursitis; its pathogenesis and rational operative treatment. Am. Jour. Med. Sc., cxlix:351 (March) 1915.
3. Mustakallio, S.: Ueber die Röntgenbehandlung der Periarthritis Humeroscapularis. Acta Radiol., xx:22-32 (February) 1939.
4. de Araujo, A., and Osborne, C.: Da Radiotherapia na peri-artrite escapulo-humeral. Rev. brasil de orthop. e traumatol., ii:235-260 (March-April) 1941.

## ERRORS IN THE DIAGNOSIS OF INTESTINAL OBSTRUCTION\*

ROBERT N. BARTELS, M.D., and  
KARL S. HARRIS, M.D.

The difficulties one may encounter among a specific group of patients, presenting the characteristic symptoms and signs of acute mechanical intestinal obstruction, are well emphasized by five interesting cases we have recently treated at the University Hospitals. In this group a positive diagnosis was made, yet surgical exploration revealed no evidence of obstruction. We believe further emphasis of this recognized problem is justified.

Occasionally, lack of either sufficient clinical or radiographic evidence will confuse the issue. A strangulating obstruction may be present with negative x-ray findings. Several years ago Wangenstein<sup>1</sup> noted that gaseous shadows in the small intestine appear later in strangulating than in simple obstructions. More recently observations of Goldman<sup>2</sup> indicate that negative x-ray evidence in plain roentgenograms may not rule out the possibility of an internal strangulating obstruction. Goldman reported two cases of internal strangulating obstruction and gangrenous bowel which had negative roentgen findings. These cases are probably less common than those without intestinal obstruction but with positive x-ray findings compatible with such a diagnosis. We wish to emphasize that one cannot make a diagnosis of intestinal obstruction based entirely upon x-ray evidence. So-called positive roentgen findings are not pathognomonic of obstruction without a substantiating history and without clinical findings. Rendich and Abrams<sup>3</sup> in evaluating roentgen diagnosis in intestinal obstruction, reported forty cases

\*From the Department of General Surgery.

which illustrate this fact. In the first group there were twenty consecutive proved cases of intestinal obstruction. In these the x-ray studies all showed gaseous distention and 60 per cent had fluid levels. The second group consisted of twenty consecutive proved cases of nonobstruction examined by x-ray to confirm or rule out obstruction. In this group 90 per cent showed gaseous distention and 55 per cent had fluid levels.

Since it is unusual in our experience to have an acceptable history, adequate physical signs, and corroborative roentgen evidence of intestinal obstruction without confirmation of these findings at operation, we wish to report the following five cases.

#### CASE REPORTS

Case 1. A. W. (No. 42-10802), a white male forty-six years of age, was admitted September 14, 1942. About four hours before admission the patient developed sudden, severe, cramping pain in the right side of the abdomen, accompanied by vomiting. The vomiting recurred with subsequent attacks of pain. There were no stools or passage of flatus since the onset of illness. He denied hematemesis, tarry or bloody stools. There were no urinary symptoms. The patient had had no previous abdominal operation. One year before he had been examined in another hospital and x-ray studies revealed a duodenal ulcer.

Physical examination revealed slight abdominal distention with some rigidity and minimal rebound tenderness to the right of the umbilicus. No masses or solid organs were palpable. There was moderate tenderness in the right side of the abdomen. Auscultation revealed overactive peristalsis with an occasional loud rush concomitant with severe cramping pain; metallic tinkles could be heard. Rectal examination revealed slight tenderness throughout the cul-de-sac. The urinalysis was negative. The leukocyte count was 18,750. A roentgenogram (Fig. 1) showed dilated loops of small bowel with multiple intra-intestinal fluid levels.

A diagnosis of small bowel obstruction was made. At operation, in the mid portion of the small intestine there was a segment about four feet long which was somewhat distended, edematous, congested, and stippled on handling. Peristalsis was definitely present in this segment. Below and above this area the small bowel was of normal caliber and appearance. The blood supply to the gut was normal. There was no evidence of obstruction elsewhere in the intestinal tract. The duodenum showed evidence of an old, healed, inactive ulcer on the anterior wall. His course was satisfactory and he was discharged on his eleventh postoperative day.



Fig. 1. Roentgenogram of abdomen taken in upright position. The most conspicuous dilated loop of small bowel with fluid levels lies over second and third lumbar vertebrae.

Comment: Shortly after x-ray examination and just prior to operation the patient passed some gas per rectum and stated that much of his pain was relieved. The only solution we have to offer for this case is that the obstruction was due to a volvulus which released itself spontaneously.

Case 2. A. J. (No. 40-3890), a white female twenty-four years of age, was admitted to the neurologic service December 18, 1942. Her complaints were headache and inability to urinate, requiring catheterization, for the previous two weeks. She also complained of severe pain in the back extending around into the abdomen. She was studied by members of the Department of Urology and their diagnosis was atonic myogenic bladder. She had been seen in the gynecology clinic in March, 1940, and a diagnosis was made of chronic pelvic inflammatory disease. She was seen again in July, 1941, at which time a diagnosis of sacro-iliac strain was made. Her past operative history included an appendectomy in 1926, bilateral salpingectomy in 1937, and a laparotomy in 1938 about which the patient could give very little information. This latter procedure had been done for a vague gastro-intestinal disorder. Eight days after admission, we saw her in consultation because of severe abdominal pain which was worse in the right lower quadrant. It was continuous with occasional severe exacerbations of cramps. The attack was of nine hours' duration. There was



nausea but no vomiting; and there had been no passage of feces or flatus since onset.

Physical examination revealed a distended abdomen with no visible peristalsis or intestinal pattern. There were old lower midline and lower right rectus scars without evidence of hernia. There was rigidity in the right side of the abdomen with tenderness and rebound tenderness in this area. No masses or solid organs were palpable. Auscultation revealed overactive peristalsis. A roentgenogram (Fig. 2) showed dilatation of the small and large bowel with gas. The clinical preoperative diagnosis was intestinal obstruction, probably due to adhesions.



Fig. 2. Roentgenogram of abdomen taken in upright position. The presence of such a large amount of gas in the small bowel was considered significant. No visible fluid levels.

At operation, four hours after the roentgenogram was taken, the small bowel was collapsed and normal. The colon was distended with gas from the cecum to the rectum. There was no evidence of mechanical obstruction or other pathologic change in either small or large bowel. Except for several episodes of urinary retention, her course was satisfactory and she was discharged on her eleventh postoperative day.

Comment: The operative findings did not explain the symptoms, physical findings, and roentgen signs of intestinal obstruction. It might be classified as intestinal obstruction due to enterospasm and would fit into that entity as described by Zimmerman<sup>4</sup> and numerous others.

Case 3. F. B. (No. 43-3789), a white male sixty-six years of age, was admitted April 12,

1943, uncooperative and complaining of severe abdominal pain. The history was obtained from relatives. For one week he had complained of abdominal cramps and inability to move his bowels or pass flatus. During this time he had been nauseated, vomited repeatedly, and the vomitus during the forty-eight hours prior to admission had become fecal in character. No history was obtained regarding bowel habits before the onset of the present illness.

Physical examination revealed an acutely ill, elderly, white male. The pertinent physical findings were confined to the abdomen, which was markedly distended and showed visible peristalsis. The percussion note was hyperresonant. There was moderate, generalized abdominal tenderness but no rebound tenderness. No solid organs or masses could be palpated. Auscultation revealed hyperactive peristalsis with frequent loud rushes concomitant with the patient's complaints of pain. Metallic tinkles were heard. Rectal examination was negative. A roentgenogram (Fig. 3) showed a hugely dilated large bowel proximal to the region of sigmoid colon. There was also some small bowel dilatation with evidence of fluid levels.

At operation the colon was markedly dilated from the cecum to the rectosigmoid junction. In this area there was constriction and thickening which was interpreted as an annular carcinoma. The distal portion of the small bowel was moderately dilated. A cecostomy was done but it failed



Fig. 3. Roentgenogram of abdomen taken in upright position. The greatly distended ascending and transverse colon are found at the edges of the photograph. A mottled area in the right lower abdomen indicates a large accumulation of feces in the cecum and ascending colon.

to function satisfactorily. The patient's course was progressively downhill and he expired seventy-two hours after operation. At autopsy no obstructive lesion of the bowel could be found.

Comment: We believe the obstruction in this case was due to colonic spasm. The symptoms and findings simulate those described in Colp's<sup>5</sup> recent review of colonic spasm as a cause of intestinal obstruction.

Case 4. F. B. (No. 43-698), a white male seventy-two years of age, was admitted to the urologic service January 20, 1943. His complaints were difficulty in voiding, pain in the abdomen when he strained to urinate, and loss of weight and strength. He also complained of cramping abdominal pain, severe constipation, and recent passage of blood per rectum. He had been confined to bed for two weeks prior to admission because of weakness. There had been anorexia but no vomiting.

Physical findings revealed an elderly, disoriented, white male. The abdomen was markedly distended and hyperresonant with visible peristaltic patterns. There was no significant tenderness or rigidity, and no solid organs or masses were palpable. On auscultation there was hyperactive peristalsis with occasional rushes and high pitched tinkles. By rectal examination the prostate showed benign hypertrophy and a questionable mass above the prostate. The residual bladder urine was 150 cubic centimeters. A roentgenogram (Fig. 4) showed marked dilatation of the ascending, trans-

verse and descending colon. No fluid levels were seen.

A barium enema was attempted but only a small amount of barium could be retained and the colon was not satisfactorily visualized.

Because of increasing symptoms and signs of intestinal obstruction, an emergency exploration was carried out. At operation there was no evidence of a mechanical obstruction. The colon was dilated from the cecum to the lower part of the descending colon; it was very thin walled and contained little fecal material. The sigmoid flexure and rectum were normal. No further operative procedure was carried out. Postoperatively the distention was adequately controlled by the administration of prostigmine.

Comment: Preoperatively we interpreted the history, physical examination, and x-ray findings as evidence of obstruction on the basis of malignancy of the descending colon. Our final diagnosis was megacolon.



Fig. 4. Roentgenogram of abdomen taken in upright position. Haustral markings are prominent in the dilated colon.



Fig. 5. Film taken following barium enema. There is a classical filling defect and point of obstruction.

Case 5. L. M. (No. 42-13696), a white male seventy-one years of age, was admitted April 6, 1943. He complained of recurrent episodes of abdominal cramps, associated with nausea and vomiting, for four months. These occurred about once a week, lasting three to four days. Bloating was usually present during the attacks. He had been constipated for many years and this was worse since onset of the present illness. He had lost thirty pounds in weight in four months.



Physical examination revealed evidence of weight loss. The abdomen was flat with no demonstrable ascites, and no masses or solid organs were palpable. There was no tenderness or rigidity. Rectal examination showed 3+ benign prostatic hypertrophy but was otherwise negative. Fluoroscopic examination and films of the colon after barium enema (Fig. 5) showed an obstructive lesion of the sigmoid with gas proximal to the obstruction. A diagnosis of carcinoma of the sigmoid was made.

At operation the sigmoid colon and the remainder of the intestinal tract, from the cardia of the stomach to the pelvic portion of the rectum, was entirely free of any pathologic lesion. Thorough exploration of the peritoneal cavity revealed nothing unusual. His course was uneventful and he was discharged on his eleventh postoperative day.

Comment: The negative operative findings and his subsequent course justify a diagnosis of intestinal obstruction due to colonic spasm.

#### SUMMARY

The occurrence of intestinal obstruction with negative x-ray findings, or the occurrence of positive x-ray findings in nonobstructed cases, is reemphasized. Absence of mechanical intestinal obstruction as determined by operative or autopsy findings is unusual when history, clinical, and roentgen findings concur in that diagnosis. Five such cases are reported.

#### REFERENCES

1. Wangenstein, O. H.: Elaboration of criteria upon which the early diagnosis of acute intestinal obstruction may be made, with special consideration of the value of x-ray evidence. *Radiology*, xvii:44-62 (July) 1931.
2. Goldman, L.: Intestinal strangulating obstruction with negative roentgenologic findings. *Surgery*, xlii:834-846 (June) 1943.
3. Rendich, R. A., and Abrams, H. S.: Intestinal obstruction: evaluation of roentgen diagnosis. *Ann. Surg.*, cii:1040-1049 (December) 1935.
4. Zimmerman, L. M.: Spastic ileus. *Surg., Gynec. and Obst.*, l:721-732 (April) 1930.
5. Colp, R.: Colonic spasm as the cause of intestinal obstruction. *Surgery*, x:270-286 (August) 1941.

### PHYSIOLOGIC FACTORS INVOLVED IN ATROPHY AND REGENERATION OF SKELETAL MUSCLE\*

HARRY M. HINES, Ph.D., and  
WILLIAM H. WEHRMACHER, B.A.

The term "atrophy" is used to designate a state of wasting in a cell, organ, or tissue. The derivation of the term would lead us to define it as a state induced through lack of nourishment to the structure in question. Although atrophy occurs in many types of tissues, this report will be restricted to that occurring in skeletal muscle.

A number of conditions may lead to an extensive atrophy of skeletal muscle. During acute inanition,

the muscles undergo atrophy at a rate which closely parallels the loss of total body weight. Atrophy follows functional motor denervation, a condition which may result from trauma to peripheral nerves or from the death of their anterior horn cells. Extensive muscle atrophy occurs following tenotomy and during immobilization by means of braces and casts. The latter is usually referred to as "atrophy from disuse." The changes occurring in the conditions mentioned above have so many characteristics in common that they suggest the existence of some common factor which may be fundamental to all types of atrophy.

The gross criterion for atrophy is a shriveled or shrunken muscle which is somewhat darker in color than normal. This is especially conspicuous if the muscle or muscles involved can be compared with normal contralateral or adjacent members. Microscopic examination reveals the presence of shrunken muscle fibers, the nuclei of which are larger, more oval in shape, less deeply staining, and relatively increased in number. There is a relative increase in the connective tissue which in extreme states constitutes practically all that remains of the muscle.

Atrophic muscles exhibit a change in the concentration of a number of chemical constituents. There is a decrease in the concentration of substances which exist chiefly within the muscle cell, such as adenosine triphosphate, creatine, phosphocreatine, and potassium. On the other hand, chemical analyses show an increased concentration of calcium, collagen, chloride, fat, and sodium. The latter substances are known to be associated chiefly with connective tissue and the extracellular compartments of muscle.

Muscles undergoing atrophy following denervation or tenotomy exhibit numerous functional changes. Such muscles are proportionally weaker than normal. The loss of strength per unit weight of tissue is due in part to a relative decrease in the weight of the muscle fiber in relation to total muscle weight, and, in part, to a qualitative impairment of the contractile mechanisms. It is interesting to note, however, that but little impairment of muscle strength per unit weight occurs during acute inanition until the terminal stages of a fast are reached. The muscles of a fasting subject suffer weight loss but retain the relative strength capacity required to lift and move its emaciated body. It would seem as if much of the asthenia exhibited by hungry and emaciated subjects is related to the effectiveness of the stimulus pattern rather than to a diminution in the inherent strength capacity of muscle tissue itself. The atrophy which follows denervation is associated with the appearance of continuous fibrillary activity. This

\*From the Department of Physiology.

appears to be the result of asynchronous contractions of the individual muscle fibers which have become sensitized to some substance or substances in their environment. This type of activity is not present in muscles undergoing atrophy from inanition, immobilization, or tenotomy.

The studies reported herein are concerned with searches for the cause of atrophy, various means of retarding its progress, and optimum conditions for muscle regeneration. The experiments were carried out on the gastrocnemius muscles of more than 2,000 animals, including cats, guinea pigs, and albino rats. The general plan followed was to denervate or tenotomize the gastrocnemius muscles of both hind limbs. One side served as the experimental member and the contralateral as its control. In some experiments only unilateral denervation or tenotomy was done. In these cases the unoperated contralateral muscle constituted the control. A section of the tibial nerve was removed when regeneration was to be prevented. If reinnervation was to be allowed, the nerve was only crushed.

Immobilization of the denervated gastrocnemius muscle was accomplished by enclosing the limb from the foot to the hip in a plaster cast which was applied with the muscle in the neutral rest position. The denervated noncasted muscle of the contralateral limb served as the control. In other experiments casts were applied in a similar manner to nondenervated limbs in order to bring about atrophy from disuse. One group of animals, after unilateral denervation of the gastrocnemius muscle, was forced to exercise daily in revolving cages. The controls for this experiment consisted of a group of animals which, after operation, were confined to small cages for the duration of the experimental period. Either bilateral denervation or tenotomy was performed upon other groups of rats. The muscles of one limb were subjected to daily periods of electrical stimulation, while the contralateral, denervated, nonstimulated muscles served as the control.

Various criteria were employed to evaluate the condition of the atrophic muscles. The strength of the muscles was measured by optical recordings of the maximal isometric tension responses to volleys of supermaximal stimuli applied directly to the muscles and to their motor nerves. After the strength measurements were completed, the muscles were carefully dissected out and weighed. Such procedures made it possible to determine the degree of atrophy existing at any chosen time and permitted the subsequent use of the muscles for chemical studies.

The results of experiments on a large number of control animals indicated that atrophy and re-

generation were remarkably constant processes if the animals were matched as to age and body weight. The values for muscle weight, strength, and chemical composition can be predicted for any given time after denervation.

Immobilization, by plaster casts, of nondenervated muscles was accompanied by rates of atrophy which approached those found following total denervation. Such immobilization had no appreciable effect upon the rate of atrophy in totally denervated muscles but, when immobilization was continued into the period of reinnervation and regeneration, it was found to delay the rate of recovery of both muscle mass and strength. The failure of immobilization to accelerate the rate of atrophy in totally denervated muscle suggests that denervation alone affords conditions for maximal rates of atrophy.

The animals which were forced to exercise their regenerating muscles by running in revolving cages showed earlier recovery of muscle mass and strength than did animals subjected to immobilization or restricted activity. Likewise the daily application of short bouts of electrical stimuli to the paralyzed muscle was found to delay atrophy and enhance regeneration.

The findings in a number of our experiments elucidate some of the factors in the causation of atrophy. A theory was propounded by Langley that denervation atrophy results from exhaustion due to continuous fibrillary activity. The results of our investigations are opposed to such a concept of atrophy. The following constitutes a summary of the more pertinent observations: (1) The rate of atrophy following denervation where fibrillary activity was present was of the order of that which followed tenotomy and immobilization where fibrillary activity was absent. (2) Drugs such as quinine and atropine, which lessen or abolish fibrillary activity, did not retard atrophy. (3) The repeated administration of potassium chloride and prostigmine, substances which enhance fibrillary activity, did not accelerate the rate of atrophy. (4) The daily electrical stimulation of denervated muscle had no significant effect upon fibrillary activity but, nevertheless, greatly retarded the rate of atrophy, which according to the exhaustion theory would be expected to enhance rather than retard atrophy.

The literature contains numerous references to atrophy being caused by the loss of "trophic influence" of the motor nerve. It is not clear whether the proponents of this theory have always wished to differentiate between the effects of inactivity per se and a purely trophic factor, such as is recognized to exist between the nucleus and other parts of a cell. Some workers have suggested that



substances necessary for the normal condition of muscle flow along the nerve substance or are released at its termination. Our investigations offer only negative evidence in regard to such a concept. Artificial stimulation retarded atrophy in muscles where all neural elements had degenerated and the frequent administration of chemical mediators such as acetylcholine, mecholyl, and potassium salts failed to exert any significant effect upon the rate of atrophy.

In the course of these investigations much evidence was found to support the concept that atrophy results from a failure of the muscles to develop tension during contraction. The following observations support such a theory: (1) Rates of atrophy comparable to those following denervation were observed after tenotomy and during immobilization. These are conditions in which all the neural contacts are preserved but a state of inactivity exists. (2) Electrical stimulation of denervated muscle proved to be an effective measure for retarding atrophy if the treatments were carried out under certain definite conditions. It was found that the strength of the stimulus must be such as to elicit strong vigorous contractions and that the muscle must be weighted and stretched during the period of stimulation in such a way as to provide the opportunity for maximum tension development. The effectiveness of such artificial stimulation was found to increase with the frequency of the exercise periods. (3) Passive stretching proved to be an ineffective means of retarding atrophy. (4) The rate of atrophy following tenotomy was not retarded by electrical stimulation. In this condition the unattached muscle contracted when stimulated but failed to develop effective tension during its contractions. (5) It was found that a marked drop in muscle glycogen concentration occurred shortly after denervation. A prompt recovery of glycogen concentration to normal or above normal values occurred at the time of subsequent reinnervation and regeneration. Changes in glycogen concentration appear to be a sensitive indicator for the onset of atrophic changes following denervation and their disappearance following reinnervation. Electrical stimulation proved to be an effective means of preventing this loss of glycogen following denervation.

It is interesting to speculate concerning the mechanisms by which artificial stimulation retards atrophy. It is suggested that the energy levels established by the chemical reactions associated with tension development may be necessary for the anabolic processes in muscle. In this connection it was previously observed that denervation prevented a muscle which had lost considerable

protein due to fasting from regaining this material during periods of subsequent feeding. It may well be also that a certain amount of tension is required in order to maintain the proper alignment of the molecular patterns in the submicroscopic structures.

The question may be asked as to what extent these findings from animal experimentation may be applied to the treatment of patients. It is obvious that retardation of atrophy in skeletal muscles, permanently deprived of motor innervation, could have only an esthetic value. However, if paralyzed muscles are eventually able to recover all or part of their innervation and become functional again, the preservation of a larger mass of functional tissue through artificial stimulation may be of distinct value. It has long been held by a rather large group of clinicians that activity and fatigue in some way interfere with neuromuscular recovery following peripheral nerve injuries. This group believed that the best recovery occurred when the paralyzed muscles were protected by a regimen of inactivity and immobilization. The value of such procedures has recently been challenged in connection with the management of patients recovering from poliomyelitis. Our findings indicate that immobilization of muscle at the onset of and during the time reinnervation is taking place tends to retard the recovery of muscle mass and strength. On the other hand, artificial stimulation and exercise were found to enhance the rate of neuromuscular regeneration. Aside from the need of a certain amount of immobilization for the protection of a freshly sutured nerve, we were unable to find experimental evidence that inactivity and immobilization in any way enhanced neuromuscular regeneration. On the contrary, however, the evidence from animal experimentation supports the validity of a program of early muscle use as the best means of promoting recovery from peripheral nerve injury.

#### CONCLUSIONS

1. Studies which were carried out on the gastrocnemius muscles of cats, guinea pigs, and albino rats emphasize the importance of a failure of muscle to develop effective tension as a cause of atrophy following denervation, immobilization, and tenotomy.

2. Electrical stimulation was found to delay denervation atrophy only when it was carried out under conditions which permitted effective tension development by the muscles.

3. Inactivity and immobilization were found to retard neuromuscular regeneration.

4. Artificial stimulation and exercise exerted a favorable effect on regeneration.

5. The evidence from animal experimentation supports the validity of a program of early muscle use as the best means of promoting recovery from peripheral nerve injury.

## ACHALASIA OF THE ESOPHAGUS\*

RALPH F. NIEHAUS, M.D.†

Achalasia of the esophagus or "cardiospasm" is a not uncommon condition. It causes intermittent obstruction of the cardiac end of the esophagus and is a non-neoplastic lesion. It may, however, seriously interfere with the patient's nutrition, and it must be differentiated from carcinoma since the prognosis and treatment are so dissimilar.

### HISTORIC NOTES

The first recorded account of cardiospasm may be credited to Thomas Willis, since his "Pharmaceutice Rationalis" published in 1672 described a case with clinical findings typical of those of cardiospasm.

In 1883, Kronecker and Meltzer showed that "every act of swallowing easily opens the cardia by reflex action." Einhorn, 1888, in writing about a case of marked dilatation of the esophagus, concluded that it was due to "a lack in the reflex relaxation or opening of the cardia during the act of swallowing." However, this paper seems to have been overlooked until 1896 when Rolleston presented a similar observation. Almost two decades passed until Hurst, in 1913, propounded the same theory, and on Sir Cooper Perry's suggestion, the term "achalasia" (absence of relaxation) was introduced by him in 1915. But the story of achalasia and the mechanism of its production does not end with Hurst; in 1922 Mosher ascribed cardiospasm to some deformity of the liver tunnel. Jackson, writing in the same year, also suggested that it was failure of normal opening of the diaphragmatic pinchcock that produced the stenosis in so-called cardiospasm. Thus, the etiology of this condition is not settled.

### ANATOMY AND NERVE SUPPLY

The average length of the esophagus is 25 centimeters. The lateral diameter when empty is 2.3 centimeters at the cricoid cartilage and 2.6 or 3 centimeters at its widest. It is normally about 2.5 centimeters where it passes through the diaphragm.

Gray<sup>1</sup> states there is general agreement that a thickening of the circular fibers of the esophagus forms a definite but not a strong cardiac sphincter. Lendrum examined multiple sections of 150 human

cardias. In none did he find any special band of circular muscle serving as a sphincter. Hurst, on the other hand, thinks that a cardiac sphincter exists normally. It is about one inch in length with its upper end on a level with the hiatus esophagi. Moreover, Hurst<sup>2</sup> believes that this sphincter differs from other muscles in having relaxation as its normal function. At rest, its tone is such that it completely obliterates the lumen which it surrounds, and when stimulated it relaxes and removes the obstruction.

The nerve supply of the gastro-esophageal junction is derived from two sources: sympathetic and parasympathetic. The sympathetic supply comes from (a) the ganglionated trunks between the



Fig.1. Pharyngo-esophageal diverticulum showing compression of the esophagus.

sixth and the ninth and tenth thoracic ganglia; (b) the greater splanchnic nerves and occasionally the lesser thoracic ganglia; and (c) the plexus around the left gastric artery and inferior phrenic arteries. The parasympathetic supply is carried by the vagi, which supply the whole of the esophagus and form a plexus on the anterior and posterior surfaces, and from which in turn fibers pass to the myenteric or Auerbach's plexus. This latter plexus is a network of nerve fibers, mostly unmyelinated, which lie between the inner circular and outer longitudinal muscular layers. Auerbach's plexus is uniformly distributed on all sides of the alimentary canal, and ganglia occur at nodal points. These ganglia are made up of nerve fibers, ganglion cells, and supporting cells. Auerbach's

\*From the Department of Radiology.

†Now in San Diego, California.



plexus functions by conducting stimuli and coordinating the movements of the gastro-enteric tract.

#### PATHOGENESIS

Hurst and Rake<sup>3</sup> found pathologic changes in Auerbach's plexus in every one of eleven cases of achalasia. The lesions were of a subacute inflammatory nature. The ganglia were increased in size, were apparently undergoing degeneration, and showed marked cellular infiltration, with lymphocytes predominating. The vessels surrounding the ganglia were dilated. In the later stage there was disappearance of ganglion cells and beginning fibrosis of the plexus. In the final stage the plexus and surrounding tissues were converted into a dense, firm scar. These changes are most marked at the cardia (undilated portion), and become less obvious when traced up the esophagus. Lendrum<sup>4</sup> reports on thirteen cases, in ten of which the vagus nerve was entirely normal. In every case, however, there was striking loss or complete absence of ganglion cells from the myenteric or Auerbach's plexus. Sometimes there was actual inflammation in and about the ganglia. Thus, Lendrum's observations are compatible with Hurst's, since both authors theorize that achalasia of the cardia is primarily a disease of Auerbach's plexus, and that with destruction of its ganglia the sympathetic fibers to the terminal portion of the esophagus are allowed to act unopposed. Best and Taylor<sup>5</sup> are also in agreement with this view.

Of interest is Hurst's<sup>2</sup> belief that cardiospasm

is analogous to Hirschsprung's disease and idiopathic dilatation of the ureters, which they ascribe to a similar cause; that is, a loss of tone due to partial destruction of the nerve supply.

#### SYMPTOMS AND DIFFERENTIAL DIAGNOSIS

In early cardiospasm, the muscular hypertrophy acts as a compensatory mechanism, and as long as this compensation is maintained no symptoms are produced and the patient is unaware of the condition. Thus, it is thought that in the early stage the lesion cannot be diagnosed clinically. Since symptoms do not occur until dilatation of the esophagus is established, the onset of clinical signs is insidious. The history is usually one of increasing difficulty in swallowing, or a sensation of food "sticking" deep beneath the lower end of the sternum. These complaints may be present over a period of years. Occasionally, however, the onset of dysphagia is abrupt. The discomfort caused by the "sticking sensation" may disappear spontaneously or after regurgitation of food. The regurgitation is a voluntary act which the patient learns to perform whenever substernal sensations become sufficiently unpleasant. The regurgitated material contains unchanged food, much mucus, and no free hydrochloric acid.

Carcinoma of the esophagus or of the fundus of the stomach is another condition giving rise to similar symptoms. Carcinoma usually occurs in patients over forty years of age, is more frequent in men than women, and there is a definite, often rapid, loss of weight and strength. Moreover, dysphagia becomes progressively worse without intermission until complete obstruction occurs after a comparatively short time. However, carcinoma beginning in very old people may advance slowly. Achalasia may occur in patients of any age, but it usually appears in those between the ages of twenty and forty years.

Pharyngo-esophageal or Zenker's diverticulum may also be confused with achalasia because of the obstruction which may occur late in the condition. The sensation of "sticking" of food is higher up, but the regurgitation may be confusing. Roentgen examination promptly differentiates this condition from either achalasia or carcinoma.

#### ROENTGEN APPEARANCES

In its early stages achalasia reveals a smooth and uniform dilatation of the lower esophagus. The opaque meal ends abruptly as a fusiform or funnel-shaped shadow. In some instances, after variable periods of time, the barium passes through the cardia in a narrow, ribbon-like stream. Roentgenologically, the decompensated stage of achalasia reveals a markedly dilated thoracic esophagus. It is elongated and often assumes a kinked or S-shaped form.



Fig. 2. Carcinoma of lower end of the esophagus. Note irregularity of constriction and lack of much dilatation.



Fig. 3. Achalasia with moderate dilatation of esophagus. The obstruction is smooth.

According to Kornblum and Fisher<sup>6</sup> "a distinct fluid level is often discernible located high in the thorax or in the lower part of the neck. In the lateral view, the enlarged esophagus tends to displace the trachea forward. This appearance is not, however, pathognomonic of achalasia since it is also seen in carcinoma of the esophagus, diverticulosis, and benign stenosis. In the lower part of the chest just above the diaphragm there will be noted a triangular shadow, apex directed upward. This is due to the shadow of the dilated fluid-filled esophagus superimposed upon the cardiac shadow. This appearance, along with the displaced trachea and fluid level, will probably not be found in any other esophageal condition." Kornblum and Fisher also point out that "the roentgenologic examination in cases of achalasia of the cardia is not complete until examination has been done after the esophagus has been evacuated of its retained contents." Ritvo and MacDonald<sup>7</sup> in many cases of achalasia have succeeded in producing a temporary abolition of the obstruction by the administration of amyl nitrite or nitroglycerine, thus allowing the passage of fluid and food into the stomach and permitting a more accurate visualization of the esophagus. This should be done in order to detect any complicating lesion. The relationship of cancer to achalasia of the cardia is twofold: first, a differential diagnosis must be made between carcinoma of the lower end of the esophagus or fundus of the stomach and achalasia;

and second, one must exclude carcinoma as a complication in achalasia itself.

Forty cases of achalasia were seen at the State University of Iowa Hospitals during the ten year period of 1929 to 1939. These cases were evenly divided as to sex. The youngest patient was eight years and the oldest seventy-seven years of age. The average age for this group was 44.7 years. Proved malignant neoplasm was discovered in five instances in this series of forty patients, although on roentgen examination and esophagoscopy the condition was diagnosed as achalasia. This represents an error of 13 per cent. These figures are in agreement with those of Vinson<sup>8</sup> who states that in 20 per cent of cases in which there is a stricture of the esophagus the cause cannot be ascertained. Of the five patients who were subsequently proved to have a malignant tumor, one was an epidermoid carcinoma of the lower esophagus and four had adenocarcinoma of the gastric cardia.

Treatment of achalasia is beyond the scope of this paper. However, it seems of interest to point out that of thirty-three patients followed for one year or more, sixteen of them showed definite improvement. The treatment in each instance consisted of Mosher bag dilatation under fluoroscopic control at intervals of one to six months. If one subtracts the five cases of proved neoplasm from the above mentioned thirty-three, an improvement in almost 60 per cent is thereby obtained.



Fig. 4. Advanced case of achalasia with extreme dilatation of esophagus. Carcinoma never produces this picture.



Eliason and Erb<sup>9</sup> call attention to aspiration pneumonia as one of the complications of achalasia. It is of interest to point out that there were two such cases in this series. This was confirmed by roentgenograms of the chest. Other complications found in this group of forty cases consisted of five cases of esophagitis and one of leukoplakia.

#### SUMMARY

1. Achalasia is one of the interesting lesions affecting the alimentary tract whose etiology remains controversial. According to Hurst and others, it is one of incoordination between muscle of the esophageal wall and the cardiac sphincter—an achalasia rather than one of actual spasm. Increased resistance at the cardia, together with dilatation of the esophageal wall, results from disease of the vagal endings (i.e., Auerbach's plexus). The sympathetic motor fibers to the cardiac sphincter are thereby allowed to act unopposed. The term "cardiospasm" should be reserved for those conditions in which a true spasm of the cardiac sphincter is thought to occur. Lesions which are considered capable of bringing about a true spasm are: gallbladder disease, fissures, ulcers, or inflammatory changes in the lower end of the esophagus or fundus of the stomach.

2. The differential diagnosis of achalasia, carcinoma of the esophagus, or of the fundus of the stomach and Zenker's diverticulum has been discussed. Proved malignant neoplasm was discovered in five instances in this series of forty patients, although roentgen examination and esophagoscopy had diagnosed the condition as achalasia. This represents an error of approximately 13 per cent. In these cases carcinoma is usually suspected, and differentiation between achalasia and carcinoma may not be possible even following esophagoscopy and roentgenoscopy.

#### REFERENCES

1. Gray, H.: *Anatomy of the Human Body*, edited by Warren H. Lewis. Twenty-fourth edition. Lea and Febiger, Philadelphia, 1942.
2. Hurst, A. F.: Some disorders of esophagus. *Jour. Am. Med. Assn.*, cii:582-587 (February 24) 1934.
3. Hurst, A. F., and Rake, G. W.: Achalasia of cardia (so-called cardiospasm). *Quart. Jour. Med.*, xxiii:491-508 (July) 1930.
4. Lendrum, F. C.: Anatomic features of cardiac orifice of stomach with special reference to cardiospasm. *Arch. Int. Med.*, lix:474-511 (March) 1937.
5. Best, C. H., and Taylor, N. B.: *The Physiological Basis of Medical Practice*. Third edition. Williams and Wilkins Company, Baltimore, 1943.
6. Kornblum, K., and Fisher, L. C.: Carcinoma as complication of achalasia of cardia. *Am. Jour. Roentgenol.*, xliii:364-376 (March) 1940.
7. Ritvo, M., and McDonald, E. J.: Value of nitrides in cardiospasm (achalasia of esophagus). *Am. Jour. Roentgenol.*, xliii:500-508 (April) 1940.
8. Vinson, P.: Management of benign stricture of esophagus. *Jour. Am. Med. Assn.*, cxliii:2128-2131 (December 9) 1939.
9. Eliason, E. L., and Erb, W. H.: Cardiospasm. *Am. Jour. Surg.*, xxxv:105-112 (January) 1937.

## SCURVY IN EARLY INFANCY\*

J. HOWARD LAUBSCHER, M.D.

Infantile scurvy is usually considered as a disease of late infancy, its clinical manifestations being seldom apparent before the age of six months<sup>1</sup> and <sup>2</sup>. Three instances of scurvy in younger infants have been observed recently, and because of the unusually early age of onset, the three records are presented. The ages at which unequivocal evidences of scurvy became apparent were three months, three and one-half months, and five months, respectively. The diagnosis was confirmed by roentgenograms and therapeutic tests.

#### CASE REPORTS

Case 1. P. W., a white male infant, came under observation at the age of six months and twenty days because of symptoms which began at the age of three months. The early feeding routine had been based on a formula prepared from evaporated milk, water and a dextrin-maltose sugar. Cod liver oil had been given intermittently since the second month of life, but no antiscorbutic agent had been offered until the fifth month. According to the mother, the baby had developed



Fig. 1. Roentgenogram of P.W. (Case 1) taken at five months of age. Notice the evidence of marked hemorrhage into the soft tissues.

\*From the Department of Pediatrics.

normally up to three months of age. At that age swellings began to appear over various bones. First, the left mandibular region was affected, then the corresponding area on the right jaw. A few weeks later swelling was noted over each thigh, and soon thereafter there was firm induration over all long bones, with evidence of acute pain with any manipulation. There had been no fever or skin rash. A therapeutic trial of anti-syphilitic treatment for two weeks was without effect, and the administration of 200 milligrams of ascorbic acid daily was begun. Relief from pain was prompt and the swelling became less noteworthy. The infant received this treatment for scurvy for one month and was then brought for confirmation of the diagnosis.

On examination the baby was in good growth status as determined by body measurements. Firm areas of swelling were noted over all the long bones and bilaterally over the mandible; these were not tender nor was there evidence of pain on movement. A roentgenogram (Fig. 1) was made at the age of five months by the referring physician. Additional films were obtained and, similarly, they revealed evidence of marked and generalized elevation of the periosteum over the long bones with subsequent aberrant deposition of new bone. In several areas there was evidence that blood had escaped from the subperiosteal spaces into soft tissues and there had become calcified (Figs. 2a, b and c). A diagnosis of healing scurvy with residual bony deformities was made.

Case 2. A.D., a white male infant four months of age, was brought in for care because of swelling of both forearms and evidence of pain when these parts were moved. The birth had been normal;

the birth weight was  $8\frac{1}{2}$  pounds. Evaporated milk, used initially as the basis for the formula, had been replaced subsequently by half-skimmed dried milk, with honey as the source of supplementary calories. According to the mother's repeated statement, a concentrate of cod liver oil and an ounce of orange juice had been given daily since the age of three weeks. Two weeks before the baby came under observation the parents noted that he was irritable when placed on the left side. About ten days later the left forearm became swollen, the right forearm becoming affected in a similar manner two days later. Both forearms were tender to touch and the infant cried with pain when moved. There had been no local heat or undue redness over the swollen areas.

When examined at the age of four months, the physical measurements indicated that growth had been proceeding at a normal rate. The rectal

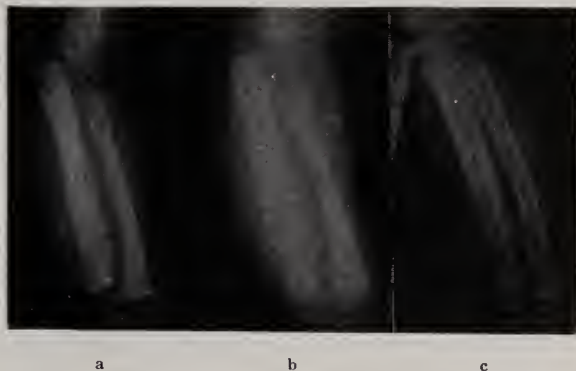


Fig. 3. Roentgenograms of A.D. (Case 2). (a) Reproduction of film taken at four months of age; notice periosteal involvement of the ulna only. (b) Reproduction of film taken two weeks later showing evidence of calcification of subperiosteal hemorrhage and involvement of the radius. (c) Reproduction of film taken at the age of seven months; notice healing of the periosteum and reforming trabeculae.

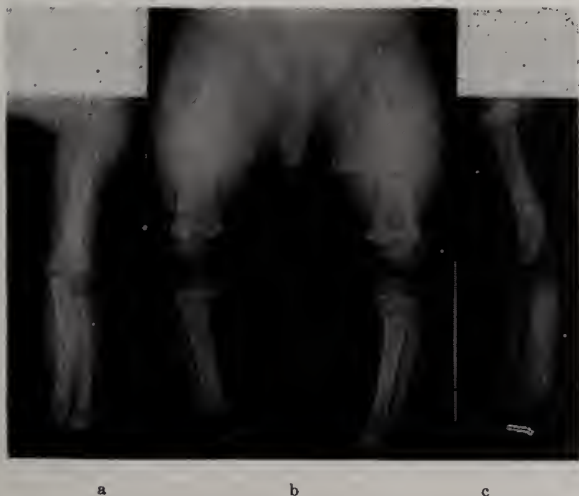


Fig. 2. Roentgenograms of P.W. (Case 1) taken at six and one-half months of age showing evidence in (a) of mild periostitis, (b) of calcified hematoma in the soft tissues, and (c) of marked subperiosteal hemorrhage of the right humerus, radius, and ulna.

temperature was 100.6 degrees. The baby looked pale, and he cried when moved. Both forearms were swollen to about twice their normal size. The swelling was symmetrical and firm to touch. Each forearm was involved in a uniform manner throughout the length of the diaphyseal portion of the bones. Other parts of the body were free from evidence of similar involvement and from other evidence of scurvy.

Blood examination gave a hemoglobin value of 9.8 grams, red cell count of 4.6 million and white cell count of 16,000; there was no evidence of blood dyscrasia. Repeated Wassermann tests were negative. The urine findings were normal. Roentgenograms showed marked elevation of the periosteum over both ulnae (Fig. 3a). A diagnosis of scurvy was made despite the mother's assurance that orange juice had been given daily



for the preceding three months. The dosage of orange juice was increased to three ounces daily. An additional daily supplement of 25 milligrams of ascorbic acid was given.

Two weeks later there had not been complete relief of the symptoms, but the baby was less irritable. The swelling seemed more pronounced over the forearms, but no new swellings had appeared. New roentgenograms showed the increased periosteal shadows and the increased subperiosteal deposition of bone that are to be expected in healing scurvy; in addition the right radius showed similar signs (Fig. 3b). The prescribed regimen seemed adequate and was continued. When the infant was examined two months later, the swelling was no longer apparent and there was no pain or tenderness. Roentgenograms showed persistence of periosteal elevation, but the process seemed well on its way toward correction (Fig. 3c). After still another month, when the infant was seven months old, the mother reported by letter that the baby seemed well and was normal in every regard.

Case 3. R.B. was a white male infant who was five and one-half months of age when brought in for care. Because of toxemia of pregnancy, labor had been induced two and one-half months before term. The birth weight of the baby was 2 pounds, 13 ounces. He remained in the hospital until his fifty-second day, when his weight was 4 pounds, 9 ounces. During his hospital stay he received a formula of boiled, diluted cow's milk with a dextrin-maltose addition. He received no supplements of cod liver oil and orange juice. Subsequently, in the home, the same type of formula was used. No orange juice was given; cod liver oil was given regularly but in insufficient quantity. The amount of the formula was not increased as the baby grew. At the age of approximately five months the infant was observed to lie with the legs flexed at the knees and with the thighs abducted. He cried when moved or when the extremities were touched.

On examination at five and one-half months of age the baby weighed 7 pounds, 12 ounces, and was obviously undernourished. There was resistance and evidence of pain on movement of the lower extremities. Roentgenograms of the extremities showed evidence of subperiosteal hemorrhage, a ground glass appearance of the bones and a Trümmerfeld zone at the metaphysis (Figs. 4a and b). The prescribed therapeutic diet provided adequate energy intake, 1 teaspoonful of cod liver oil, 3 ounces of orange juice, and 10 milligrams of additional ascorbic acid daily. The baby's immediate course was not followed further, but later the mother reported that the progress had been satisfactory.



Fig. 4. Roentgenograms of R.B. (Case 3) at the age of five and one-half months. In (a), reduced in size through photography, evidence is shown of definite periosteal involvement of femur and fibula; and in (b) a marked Trummerfeld zone is evident.

#### DISCUSSION

It is known that scurvy will develop in the course of a few weeks with complete deprivation of vitamin C. The diet of the baby is rarely completely devoid of this material. The little which is present prolongs the period of development of scurvy in proportion to the amount present. The store which the baby has at birth and the meager amounts present in the milk formula usually delay the development of scurvy until after the baby is six months of age. The baby of Case 3 may have had little or no store at birth because of the illness of the mother. In order to account for early development of scurvy, defective absorption or destruction of vitamin C may be assumed. Such an assumption must be correct if the story of the mother of the baby of Case 2 is to be accepted. In some instances good reason exists for doubting such stories, but in this case reason for doubt is greatly decreased by collateral circumstances.

The roentgenographic bone changes of infantile syphilis may resemble closely those of scurvy in some instances, particularly when scorbutic subperiosteal hemorrhage has not yet developed. In all three cases here reported the roentgenologic evidence of scurvy seemed conclusive. In addition, it is known that the Wassermann reactions with the blood of the babies of Cases 1 and 2 were negative, as was also that of the mother of the baby of Case 3. These facts, together with the

favorable response to vitamin C, seemed sufficient to establish that scurvy rather than syphilis was responsible for the disease in these babies.

Although these three instances of early scurvy are unusual, they do not stand alone. McIntosh<sup>1</sup> cites the occurrence of scurvy in an infant five months of age and refers to reports of others. A review of the medical literature of this country for the past twenty-six years brought to light a few other similar reports<sup>3, 4, 5 and 6</sup>. In total, however, such reports speak for the infrequency of scurvy under the age of six months.

#### SUMMARY

Scurvy is relatively rare in babies under six months of age, but its possible occurrence in young infants cannot be dismissed from consideration; three recently observed instances are cited as examples. The possibility of syphilitic periostitis has been considered and excluded through negative serologic tests and response to therapy. Reason for the early onset is not evident, but in at least one instance defective absorption or the destruction of vitamin C may be assumed.

#### REFERENCES

1. McIntosh, R.: In *Practice of Pediatrics*, edited by J. Brenne-mann. W. F. Prior Company, Inc., Hagerstown, Maryland, 1942.
2. Holt, L. E. Jr., and McIntosh, R.: *Diseases of Infancy and Childhood*. Eleventh edition. D. Appleton-Century Company, Inc., New York, 1940.
3. Hagmann, E. A.: Active scurvy in infant receiving orange juice. *Jour. Pediat.*, xi:480-483 (October) 1937.
4. Hill, A. L.: Scurvy in breast fed infant before 3 weeks. *Arch. Pediat.*, xlix:251-254 (April) 1932.
5. McLean, I. C.: A case report of scurvy with a summary of 50 other cases. *Arch. Pediat.*, xxxv:477-482 (August) 1918.
6. Levy, W., Greenstein, N. M., and Berenberg, S. R.: Atypical manifestations of infantile scurvy. *Arch. Pediat.*, lviii:168-175 (March) 1941.

## THE ANATOMIC BASIS OF THE DIAGNOSIS AND TREATMENT OF COMMON HAND LESIONS\*

EUGENE W. SCHELDROP, M.D.†

That the normally developed and normally functioning hand‡ is one of man's most treasured possessions is recognized by everyone. Unfortunately, however, only a few recognize the fact that it is a most complex and highly specialized organ, one which demands of the physician called upon to treat its pathologies a fund of information concerning its anatomy and physiology comparable to that demanded of the physician working upon the eye or the ear. Perhaps it was this latter thought which prompted one of this country's leading industrial surgeons to the observation, "I don't think there's anything worse from the standpoint of surgery than the treatment of wounds of the hands . . . To this day hand surgery is one of the most

poorly-done things we do . . ."<sup>1</sup> Add to this the fact that of all disabling injuries of the body, compensable and noncompensable, 30 per cent occur on the hands,<sup>2</sup> and one in five (20 per cent) compensated hand injuries involves infections<sup>2</sup> (this is more than four times the frequency recorded for other parts of the body), and we have a most urgent and distressing state of affairs in this period of national emergency when the functional integrity of the nation's hands is so vital to the war effort.

It has been made abundantly clear through the years by the writings of men who have had considerable experience in dealing with injuries and infections of the hand that surgical attacks on this member are largely excursions in applied anatomy and physiology. Indeed, it may be stated axiomatically that one's success or failure in treating a hand depends in large part upon his detailed knowledge concerning its normal structure and function. Armed with this information one cannot help but see the necessity for arriving at an early and precise diagnosis, for instituting the proper preoperative and postoperative care with the operative procedure itself having due consideration for structural and functional integrity, and for utilizing special technics. Failure in any one of these three usually spells disaster. Except as a life-saving measure, the surgical attack of the hand means little if the functional end result is nil.

It is apparent, therefore, that the physician called upon to treat this member must have more than a passing knowledge concerning it if he is to attain the successful functional end results to which he may so justly aspire. Such knowledge is best obtained at the source and the writer entertains the somewhat old-fashioned idea that the place to learn anatomic details is in the dissecting room. This, unfortunately, is impossible for most already over-burdened physicians. Jones's superbly written book,<sup>3</sup> Kanavel's monumental treatise<sup>4</sup> (Both are "must" reading for anyone doing hand surgery, and the former should be read by every physician because it is an all-time medical classic.), and selected papers by Bunnell,<sup>5 to 12</sup> Mayer,<sup>13</sup> Koch,<sup>14</sup> Mason,<sup>15 and 16</sup> Auchincloss,<sup>17</sup> Hart,<sup>18</sup> Souttar,<sup>19</sup> Mouat and Hart,<sup>20</sup> Mouat,<sup>21 and 22</sup> Pollock and Davis,<sup>23</sup> Davis and Finesilver,<sup>24</sup> Kanavel,<sup>25</sup> Bogart<sup>26</sup> and Iselin<sup>27</sup> are, therefore, suggested from a rather voluminous literature on the subject as most likely to be of benefit to the physician.

It is manifestly impossible to present a complete picture of hand anatomy in such an abbreviated paper. Rather I wish to stress certain anatomic features, which, with clinical experience, make possible the proper diagnosis and indicate the proper treatment in but a few infections of the

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†From the Department of Anatomy.

‡The term hand as used in this paper includes the fingers unless otherwise specified.



hand which collectively account for the majority of these conditions seen by the general practitioner.

At the outset it must be stressed that when an infected hand is first seen it is of greatest importance to determine whether it is a *spreading* or a *localized* infection, since the treatment in the two conditions is diametrically opposed.<sup>15</sup> The spreading infection demands conservative treatment and surgery is more than contraindicated, it is almost fatal. Kanavel's dictum of "masterful inactivity" expresses succinctly the attitude with which these infections should be approached. In the localized infections, on the other hand, immediate surgical intervention is demanded. But the differentiation between localized and spreading infections is not always easy, even for the most experienced physician. In such circumstances one must use all the skill and diagnostic acumen at his disposal, and it is here that a thorough understanding of the basic anatomy of the hand pays its greatest dividends.

#### SPREADING INFECTIONS

Acute lymphangitis is a typical example, and it is not surprising to one who has studied the anatomy of the lymphatic drainage of the hand to note the clinical findings in this condition of rapid increase of swelling of the entire hand and forearm; greatest swelling, redness, and at times tenderness on the dorsum of the hand; red lines of lymphatic extension to the epitrochlear and axillary nodes (the former initially if the focus is on the little or ring finger and the latter if it is on the thumb, index, or middle fingers); absence of pain on passive extension of fingers and thumb; no pain in voluntary movements of the fingers and thumb; no acute tenderness over the anatomic outlines of the digital sheaths, ulnar bursa, radial bursa, middle palmar space or thenar space; and an absence of bulging of the palm. Because the lymphatic vessels of the digits coalesce at the webs to pass to the dorsum of the hand, the expected pronounced swelling found on the dorsum has led more than one individual to the error of incising into it. To be sure, acute lymphangitis may ultimately localize, but one should wait for anatomic evidence of such localization before resorting to the knife.

#### LOCALIZED INFECTIONS

It is a well-known fact that some localized and seemingly innocuous hand infections may rapidly spread so that in a short period of time the entire hand is filled with pus. This is understandable when one considers the close anatomic relationships and continuities of the structures contained in the hand. It is also certain, however, that in many instances it is possible to make a precise anatomic diagnosis and institute proper drainage before the

pus has ruptured out of its anatomic confines.<sup>4</sup> Indeed, such a course is essential if one is to prevent osteomyelitis of bone, septic arthritis of joints, necrosis of tendon, hemorrhage, contractures, forearm involvement, the loss of fingers, the entire hand, or even life itself.

*Tenosynovitis of index, middle, and ring fingers:* The classical textbook description of the lack of continuity of the mucous sheaths of these digits with the ulnar bursa requires modification. A recently completed study by the author<sup>28</sup> of over 500 consecutive hand dissections reveals the mucous sheath of the index finger to be continuous with the ulnar bursa either directly or indirectly by means of a separate and distinct sheath in 5.1 per cent; that of the middle finger in 4 per cent; and that of the ring finger in 3.5 per cent of the hands studied. That infection in these mucous sheaths may, in rare instances, eventuate in ulnar bursal and radial bursal infection (since these two latter communicate in 85 per cent of the hands studied) is obvious. A close scrutiny of the anatomy of the mucous sheaths of the long flexor tendons to these digits and the osseo-aponeurotic tunnels in which they lie not only explains the symptomatology in tenosynovitis of these digits but makes one appreciate that our surgical attack of such infections in the past has been none too anatomic or physiologic. As is well known, the long flexor tendons incorporated in their sheaths are bound down to the finger by a pulley or tunnel apparatus which permits these tendons to follow the conformity of the phalanges and prevents their bowing during flexion of the finger. These binding structures are the digital vaginal ligaments and they are found only over the bodies of the proximal and middle phalanges. As a result the mucous sheath presents two constrictions, one each over the body of the proximal and middle phalanx, and three dilations. These dilations are found respectively at the distal interphalangeal, proximal interphalangeal, and metacarpophalangeal joints. That over the metacarpophalangeal joint is called the *cul-de-sac*, since the sheath ends here as a blind pouch and does not, as a rule, communicate with the ulnar bursa. If the distal transverse skin crease of the palm were projected transversely across the hand to meet the radial crease on the radial side of the base of the index finger, we would have a reliable surface marking as to the positions of these *cul-de-sacs*, since their proximal ends terminate at this line. The clinical picture of acute tenderness over the anatomic outline of the sheath and limited to the sheath only, rigid flexion of the digit, and intense pain on extending the finger which is most marked at the site of the *cul-de-sac* does not, therefore, come as a surprise. The routine use of an

extensive longitudinal incision which exposes the entire digital portions of the tendons and cuts both digital vaginal ligaments, thus jeopardizing the functional integrity of these important gliding and binding structures, is indeed a surprise. Recent war experience in England would indicate that the cul-de-sac approach of Iselin<sup>27</sup> is quite sufficient in early infections and from the anatomic viewpoint it is entirely rational since it preserves intact the important digital vaginal ligaments. "Iselin compares the synovial cavity of a flexor tendon sheath to a thermometer with a capillary tube above and a reservoir below. If the tube is opened the liquid does not flow, but it does so immediately the reservoir is opened. Applying this principal he considers that digital incisions are quite ineffective in the treatment of suppurative tenosynovitis. He recommends through-and-through commissural incisions which open exclusively the proximal cul-de-sac of the sheath."<sup>22</sup> The reader is referred to the original article for the details of the procedure.<sup>27</sup> That this form of drainage is adequate is afforded by the clinical observations: (a) the incisions show no tendency to close as long as pus formation continues and (b) if a digital incision has been made previously it dries up and rapidly closes if supplemented by Iselin's incisions. In less recent infections in which, due to intrathecal adhesions, drainage of the cul-de-sac alone does not suffice, it becomes necessary to divide longitudinally the proximal digital vaginal ligament. This ligament is long and extends into the palm well proximal to the digitopalmar crease, and failure to completely divide this ligament will lead to strangulation of the tendon at this site. The approach of Iselin in this circumstance is entirely anatomic.

It occasionally happens that the long flexors of the index finger have a separate and distinct sheath which is continuous not only into the palm but even at times beneath the transverse carpal ligament and into the forearm. It is interposed between the radial and ulnar bursae with which it may or may not communicate. This extensive sheath may be of equal caliber throughout or constricted at the same level and in much the same manner as the point of junction between the ulnar bursa and mucous sheath of the little finger, so that sometimes one and sometimes two incisions are required for its proper drainage (see below).

*Ulnar bursal infection:* The incorporation of the long flexor tendons to the index, middle, ring, and little fingers in this sac and its almost invariable continuity with the mucous sheath of the little finger is well known, but certain less prominent anatomic features deserve mention.

The ulnar bursa gradually recedes from the long flexors to the little finger as we progress distally, so that when we reach a point which, on the palmar skin surface, is precisely located at the radial side of the base of the hypothenar eminence and midway between the distal and proximal transverse creases we find only a small tubular prolongation of the bursa (an island) interposed between the sublimis and profundus tendons to this digit<sup>20</sup>. From this point distally the sheath rapidly expands to form the typical digital mucous sheath. This island of sheath may be so tiny that in the author's series there was distinct evidence of continuity in 82.6 per cent of the hands studied rather than in the expected 100 per cent. There is an attempt, therefore, at cul-de-sac formation in the sheath of the little finger also. The ulnar bursa extends for a variable distance in the forearm (usually two finger breadths) proximal to the transverse carpal ligament where it ends as a cul-de-sac. The transverse carpal ligament may be likened to a proximal digital vaginal ligament, and like such ligaments it too must occasionally be divided in extenuating circumstances. The communication of this bursa with the radial bursa takes place beneath the transverse carpal ligament and allusion has already been made to its incidence. These anatomic facts make quite logical the clinical findings in recent ulnar bursal infection of exquisite tenderness at the point on the skin indicated above; it is here that we have pus under greatest pressure, greatest swelling in distal forearm just proximal to the transverse carpal ligament, fullness of the palm but no loss of concavity, pain on passive extension in increasing degree from the index, middle, and ring to the little fingers, thumb beginning to show tenderness to pressure and sensitivity to passive motion, and swelling on dorsum of hand. The routine use of a single ulnar forearm incision, thus draining an uncomplicated ulnar bursal infection via its cul-de-sac as advocated by Iselin is, in the author's opinion, open to question because it does not take into account the attempt at cul-de-sac formation in the mucous sheath of the little finger as previously described. The tubular prolongation is tiny and may be quickly sealed off due to intrathecal adhesions. A transverse incision along the distal transverse crease to approach the "cul-de-sac" of the little finger sheath should supplement the forearm incision if the latter does not give prompt relief and if digital symptoms continue. It will be noted that the digital vaginal ligaments are spared here as in other digits. The distal forearm approach is otherwise an entirely rational and anatomic procedure. That tenosynovitis of the little finger occasionally fails to spread



to the ulnar bursa has been reported in the literature and is understandable in light of these facts<sup>29</sup>. In such an instance a surgical attack to the cul-de-sac in the same manner as for the other digits is indicated.

*Radial bursal infection:* The continuous sheath surrounding the tendon of the flexor pollicis longus muscle, and which extends into the forearm beneath the transverse carpal ligament to terminate in a cul-de-sac, is familiar to all. But certain less well-known anatomic features demand elucidation. There is only one digital vaginal ligament for the thumb and this occupies the body of the proximal phalanx. The radial bursa frequently presents a constriction and more rarely a distinct separation of its digital from its palmar elements. When these occur they lie at a site just proximal to the proximal end of the digital vaginal ligament. It is curious that separation of the radial bursa into two distinct portions is usually accompanied by lack of continuity between the ulnar bursa and the mucous sheath of the little finger. Whereas the radial bursa generally communicates with the ulnar bursa, it either may not do so or may communicate only with an adjacent independent sheath for the index finger. It also occasionally communicates with a small sheath surrounding the tendon of the flexor carpi radialis muscle where this tendon lies in the groove of the greater multangular bone of the carpus. The clinical significance of this relationship has been commented upon in the literature<sup>17</sup>. The passage of the motor twig of the median nerve across this bursa to enter thenar eminence just distal to the transverse carpal ligament is an important structure to be avoided by those who still use an extensive longitudinal incision in draining this sheath. Iselin's technic of draining this sheath in recent infections via a distal forearm incision on the radial side that opens the forearm cul-de-sac of the bursa is sound anatomically and has apparently proved quite satisfactory. An additional incision to approach what may be termed the digital cul-de-sac of this sheath may be necessary in the event of a markedly constricted bursa of the variety described above.

That unattended infection in the ulnar and radial bursae usually ruptures into the deep forearm (Parona's) space is well known. Because this space lies deep to the flexor tendons of the digits and volar to the pronator quadratus muscle, it may be effectively drained by a through-and-through technic via ulnar and radial incisions in the distal forearm after the manner of Kanavel<sup>4</sup>. A word of caution in making these incisions: beware of the dorsal branch of the ulnar nerve

on the ulnar side and the superficial radial nerve on the radial side.

The digitopalmar tendon sheaths and bursae have been considered first not because they are most frequently involved, on the contrary they are fortunately rather infrequently involved, but because it is desirable to focus attention on the position and relations of these vital structures in the palm and fingers. It is also desirable to stress the fact that whereas cellular infections of the palm and fingers may be more intricate the devastating functional result following upon unrecognized infections of the tendon sheaths gives this subject distinct priority. Of all wounds giving rise to sheath infection, those in the palm are in a small minority compared to those in the fingers, and of these latter 100 per cent<sup>17</sup> follow injuries and infections at the site of the proximal and distal transverse creases of the fingers. It will be remembered that these creases lie opposite the proximal and distal interphalangeal joints. This incidence is understandable when one considers the deep situation of the tendons and their bursae in the palm and a similar deep situation of the flexor tendons and their mucous sheaths in the fingers over the bodies of the proximal and middle phalanges, where they lie beneath the tough digital vaginal ligaments but are close to the surface and in an exposed position at the site of the aforementioned creases. A similar circumstance exists in the thumb, but, of course, only opposite its single interphalangeal crease. A thorough appreciation of these facts should cause one to treat with grave concern any injury or infection at these specific sites—to anticipate a tenosynovitis rather than be surprised by its almost certain development.

*Superficial and deep infections of the fingers and palm:*

(a) *Eponychia and Paronychia (Periungual whitlows):* These very common infections are well known to all, but certain anatomic details deserve mention. They are not to be considered as insignificant lesions in view of the fact that there have been reported in the literature such complications and end results as ankylosis of the distal interphalangeal joint, due in some cases to necrosis of the extensor tendon and in others to arthritis of the joint, osteomyelitis of the terminal phalanx, and proximal extension requiring amputation of the finger in one case and amputation of the forearm in another. The simple type of infection with no subungual extension, which is promptly healed by removal of the pus blister, merits no special consideration, but the type with subungual extension may raise great havoc if it

goes unrecognized. The eponychial epidermis becomes the reflected layer of epithelium of this epidermis at the cuticle. This reflected layer of epithelium becomes the nail matrix epithelium at the chisel-edged root of the nail and it is from this matrix that the nail grows. The matrix epithelium in turn is continuous with the nail bed epithelium which forms the roof of the vascular subungual space. So-called subungual extension of an eponychia does not involve the true subungual space, at least not initially. These extensions are situated between the nail and the nail bed epithelium; the latter fortunately forms a strong anatomic barrier between the pus sac and the vascular subungual space proper. It is important, however, that one recognize such "subungual" extensions early and institute proper treatment. Failure to do this results in erosion of the nail bed epithelium and a dispersion of pus into the true subungual space. Dissemination from this space may involve the distal phalanx which forms its floor, the extensor tendon which encroaches upon it proximally, the distal interphalangeal joint by hematogenous spread, since the digital arteries send twigs to both the joint and the subungual space, and even in rare instances the pulp of the finger on the anterior aspect. The most reliable factors in diagnosing a subungual spread from an eponychia are said to be failure to resolve promptly on removing a pus blister and a change in the color of the nail, particularly its lunula. The now well-established operation of Kanavel must be resorted to with the removal of the nail forming the roof of the collection since it acts only as a foreign body, the nail root being left intact. A single median incision should never be used; it usually results in a permanent cleft nail due to damage of the matrix epithelium. It need not be emphasized that adrenalin should never be incorporated in the novocain if one uses a local anesthetic because of the possibility of gangrene due to persistent vasospasm. The author saw such a complication a few months ago in which it became necessary to amputate both the little and ring fingers—this as a result of infiltration at the base of the little finger of a novocain-adrenalin solution for the incision of a paronychia.

(b) *Pulp infections of the fingers and thumb:*

Just as eponychia and paronychia are commonly associated with "subungual" abscess, so are infections in the pulp of the finger (also called felons, collar-stud abscesses) commonly associated with osteomyelitis of the terminal phalanx; and both associations have their explanation in the normal anatomy of the region. The cellular tissue of the pulp of a finger is remarkable in that

it is not loose but is arranged in bundles which are partitioned off by vertically disposed strands of dense connective tissue which bind down the deep aspect of the dermis to the periosteum on the volar aspect of the distal phalanx and which even penetrate the bone. These strands are particularly dense at the tip of the finger where they form a distinct partition between the pulp and the dorsum of the digit, at the sides on a plane with the volar aspect of the terminal phalanx where they effectively block communication between the pulp and the subungual space, and proximally at the distal flexion crease of the digit where they block communication between the pulp and the pretendinous space over the second phalanx. There is thus developed a distal anterior closed space. The bundles of cellular tissue in this space contain sweat glands but no sebaceous glands or hair follicles, and numerous branches of both the digital nerves and arteries. The tendon sheath does not encroach upon the space but the insertion of the profundus tendon lies in its floor, the insertion being devoid of sheath. These two latter features account for the fact that infection here never spreads to the tendon sheath, but it may cause necrosis of the insertion of the tendon. Such a localized, necrosis-complicating felon is found most frequently in the thumb and may be attributed to the greater incidence of such infections in this digit rather than to any peculiarities in the anatomy of its distal anterior closed space. The digital arteries send nutrient twigs to the epiphysis of the terminal phalanx before they enter the closed space. After entering the closed space the vessel divides into numerous branches, the chief of which are the nutrient vessels to the diaphysis of the phalanx. It can be seen that an accumulation of pus in such a tight compartment can lead to early occlusion of these nutrient vessels which accounts, in part at least, for the frequent association of necrosis of the diaphysis of the terminal phalanx with such infections, the epiphysis rarely if ever being involved. The presence of numerous terminal filaments of the digital nerves in the space accounts for the intense pain in this lesion and the isolation of this space accounts for this pain being localized over its anatomic outlines. Several incisions have been advocated for evacuation of the space, the fish-mouth or horseshoe, bilateral incisions with through-and-through drainage, and the unilateral hockey stick incision. Only the hockey stick incision is the truly anatomic one because it causes the least amount of retractile scar and the least amount of functional disturbance yet at the same time gives adequate exposure. I have always stressed the sensory side of the opponens func-



tion of the digits since it is one thing to be able mechanically to oppose the thumb to another digit but quite another to be able to feel what you have between the two digits. This fine sense must be preserved insofar as it is humanly possible and extensive encircling or bilateral incisions in the pulp are to be frowned upon. The hockey stick incision may also lose much of its merit if injudiciously placed. As one opposes the thumb to another digit, he sees that the ulnar side of its pulp meets the radial side of the pulp of any other digit. Whenever it is possible, therefore, this incision should be placed on the radial aspect of the thumb pulp and the ulnar aspect of the pulp of any other digit. The long proximal limb of the incision should stop well distal to the distal interphalangeal crease because of the possibility of nicking the tendon sheath. The question as to whether or not one should remove the involved portions of the phalanx is entirely outside the scope of this paper, and the reader is referred to the conclusions of Klapp and Beck (quoted by Iselin) for an excellent discussion of this important problem. It can only be stated here that any procedure which produces loss of tendinous insertion at the distal phalanx or invades the joint results in ankylosis. The patient cannot "make a fist" properly and the extended finger is always in the way. He not infrequently asks to have this troublesome portion of the finger amputated.

(c) *Pretendinous infection over the middle phalanx*: The subcutaneous tissue and fibrous strands have an arrangement here very similar to the pulp of the finger, hence one may speak of a middle closed space, the principal differences being that the tissue is more loose and the digital vaginal ligament forms the floor of the space rather than bone. This naturally excludes the tendons from the space. That it is not a completely closed space, however, is evidenced by the fact that infection here encroaches upon the distal and proximal interphalangeal creases, and has been known to spread proximally into the pretendinous space over the first phalanx. Infection here must be differentiated from a tenosynovitis and it may be stressed again that the important diagnostic features of the latter are pain along the anatomic outlines of the sheath with the point of maximum tenderness at its proximal cul-de-sac in the palm. Bilateral incisions on either side of the finger placed well dorsal to the digital nerves and vessels, thus establishing through-and-through drainage, have proved eminently satisfactory for relief of this condition. A word of caution must be interjected here. These infections are said not infrequently to point at the distal or proximal interphalangeal crease, a fact which is under-

standable enough in light of the anatomy of the space. It is precisely at these points that the tendon sheaths lie exposed. A misguided incision at these sites could easily involve the tendon sheath, and unattended infection in this space may do likewise.

(d) *Pretendinous infection over the proximal phalanx*: The digital vaginal ligament forms the floor of this subcutaneous space just as it does over the middle phalanx. The tendon sheath is, therefore, well protected and remains uninvolved in infections here. But unlike the distal and middle anterior closed spaces, this is not a true closed space; the subcutaneous tissue here is continuous into the palmar commissures along the lateral aspects of the base of the finger because the digito-palmar creases are only adherent to deeper structures in the midline. This accounts for the frequent extension of infection in this region to the commissures.

The subcutaneous tissue of this space is also continuous at the web with similar tissue on the dorsum of the web. This, plus lymphatic coalescence at the webs which pass to the dorsum, probably accounts for the frequent dorsal spread in these infections. Such infections are characterized early, therefore, by a pronounced asymmetrical swelling at the base of the digit and differ from a typical commissural infection in that the latter produces symmetrical swelling at the base of the digit. Both conditions, of course, must be differentiated from tenosynovitis. Because of the proximal communications of this space the infection is frequently a branched one with a sinus leading to the commissure on the volar aspect and a similar sinus passing dorsally at the web. Relief of such infections, therefore, calls for a three pronged incision, one along the side of the finger and two limbs extending from the proximal end of this incision to the volar and dorsal aspects of the web. This throws into communication with the primary focus the aforementioned sinus tracts which are said to be invariably present and which have their explanation in the anatomy of the region. Great care must be exercised in making the volar limb of the incision into the commissure since the proximal cul-de-sacs of the tendon sheaths lie exposed in the lateral walls of the commissure and may be inadvertently opened.

(e) *Commissural infection*: The most expressive French term "commissure" has no English counterpart and, therefore, demands explanation. It is not synonymous with web because it means a great deal more than that. If one hyperextends his fingers and gazes along his palm at eye level he will notice three distinct elevations in the distal palm between the digits which extend proximally

to the distal transverse crease of the palm. These elevations are produced by accumulations of areolar tissue which surround the digital vessels and nerves and bulge the skin surface due to what might be called defects in the palmar aponeurosis. They are actually quadrilateral spaces bounded on each side by the longitudinal fasciculi of the palmar aponeurosis passing to each digit and bounded proximally and distally by the proximal and distal transverse fasciculi of the same aponeurosis. These spaces and their contents constitute the commissures.

Infection here is serious since it characteristically spreads laterally to involve the other commissures or deeply to attain the dorsum. It may also result in a necrosed tendon. These complications have their explanation in certain anatomic details. The proximal cul-de-sacs of the tendon sheaths lie in the side walls of the commissure and may, therefore, become involved in late infections. The areolar tissue of the commissures is continuous across the palmar cul-de-sac of the tendon sheaths of the middle and ring fingers. This, plus lymphatic connections between adjacent commissures, explains the typical lateral spread in such infections and makes it necessary to carefully examine all the commissures because frequently all of them require drainage. The lymphatics of the distal palm like those of the digits pass dorsally at the webs, which explains the dorsal spread in such infections. It is not possible by injection experiments to force material from the commissure into the deep spaces of the palm (middle palmar and thenar spaces) which is borne out clinically by the fact that recent infection here never spreads proximally into these spaces, the hollow of the palm remains absolutely normal. The most typical diagnostic signs are symmetrical swelling at the base of the finger, redness and swelling of the web both in front and behind, often swelling and redness in the other commissures, extreme pain over the anatomic outlines of the commissure, and separation of the two fingers on either side of the involved space. It must be differentiated from tenosynovitis where the point of maximum tenderness and pain is median and not interdigital as in commissural infection. A single incision which splits the web is the most satisfactory for drainage, but one should take care that he does not nick the tendon sheath. Likewise, the volar part of the incision should not extend so far proximally into the palm that it cuts the distal flexion crease at right angles, since a badly contracted scar will result.

(f) *Subaponeurotic infections of the palm:* Immediately beneath the palmar aponeurosis and superficial to the ulnar bursa are found the superficial volar arterial arch and its common digital

branches, and the digital branches of the median and ulnar nerves. These neurovascular structures are incorporated in a layer of loose areolar connective tissue, and the layer is thereby interposed between these structures and the aponeurosis superficially and the ulnar bursa deeply, which accounts for the fact that an injected mass (and therefore pus) may lie either superficial or deep to these neurovascular structures. This region has been described and bounded anatomically by Iselin and Evrard who have given it the name central superficial pretendinous palmar space, but it is questionable whether it should be so dignified in view of the fact that infection here may spread in so many directions. Indeed, Iselin himself states that "extensions are of frequent occurrence, since they were observed in all but one of our cases." The recorded extensions of infection are understandable in light of the local anatomy. The typical infection here is a collar-stud abscess with the base lying deep and the head superficial to the palmar aponeurosis. This necessitates incising the aponeurosis in such infections and failure to do so permits the deeper seated abscess to spread in any one or all of the following directions. It may pass to the thenar space which is the most frequent, having occurred in six of the nine cases collected by Iselin during the year 1930, and for which spread he could offer no explanation. Recent studies by the author of the palmar vascular arches and their branches, particularly those to the thumb and radial side of the index finger in 252 consecutive dissections of the hand, offer the most likely explanation. The classical textbook description of the origin of the artery to the thumb (*arteria princeps pollicis*) and the artery to the radial side of the index finger (*arteria volaris indicis radialis*) from the deep volar arch requires drastic modification for such origin was found in only 30 per cent of the hands studied. In 70 per cent one or the other or both of these arteries arose from either the superficial volar arch, a persistent median artery, both superficial and deep arches, or as independent superficial branches of the radial artery, in which case there was present no completed superficial arch. In all instances one or the other or both of these vessels were coursing in the roof of the thenar space rather than beneath its floor (the adductor pollicis muscle) as usually described, and would therefore provide an excellent pathway for the spread of pus to this space. These subaponeurotic infections may spread to the forearm proximally or the commissures distally and in both instances the pathways provided by blood vessels are utilized, and this fact has been verified by injection experiments. In the former instance pus tracks along the ulnar artery through



the tunnel provided for this vessel (and the ulnar nerve) in the transverse carpal ligament to come to lie along the ulnar neurovascular sheath in the distal forearm. In the latter instance pus tracks along a common digital artery which is the most central of the structures in a commissure. Lastly these infections may pass deeply to involve the ulnar bursa or the middle palmar space. Because the region is so ill-defined anatomically, infection here offers no clear-cut diagnostic features. It must be differentiated from ulnar bursal infection with which it may be easily confused because of the distal forearm swelling and from middle palmar space infection. The special diagnostic features of the former have already been discussed and the latter will be dealt with presently. In recent infections a local palmar incision, which follows the course of the flexion creases and does not cut across them at right angles, with careful inspection for the sinus leading through the palmar aponeurosis and division of this latter to evacuate the subaponeurotic collection, is said to give prompt relief.

(g) *Deep retrotendinous infection (infection of middle palmar and thenar spaces)*: The classical injection experiments of Kanavel and his lucid description of the anatomic boundaries and extent of these important deep spaces are known to everyone who does hand surgery. This important phase of hand anatomy does not permit abbreviation and should be consulted in the original. Better still, one should dissect a hand, since it is only by a careful dissection that one can fully appreciate the anatomy of these spaces, or of any other portion of the hand it might be added. One has actually to see the position, relations, and depth of hand structures in order to understand them fully. It is desirable, however, to call attention to a few features which may be overlooked. The deep situation and inaccessibility of these spaces account for the fact that they are practically always involved secondarily to infection elsewhere in the hand or fingers, usually from a ruptured tenosynovitis, and only rarely are they primarily involved. Such deep seated infection, therefore, constitutes a complication of hand infections. It probably should rarely if ever occur. The one sure means of preventing it is the early and proper diagnosis and treatment of the primary focus or foci. Occurring as it does from unattended and undiagnosed infection elsewhere, however, the hand is literally filled with pus when the surgeon sees it, with the frequent added complications of hemorrhage (from the deep volar arch) and osteomyelitis of the metacarpal and carpal bones so that amputation may be the only means of saving life. In such instances, therefore, much of the diagnos-

tic criteria of primary involvement of these spaces is lost. Although the middle palmar and thenar spaces are sharply delimited from each other anatomically, injection material may be made to pass from one to the other as was shown by Kanavel in three separate experiments. That such communications are prone to occur clinically is attested by Kanavel's own words, "That it does occur frequently in neglected cases I have abundant clinical evidence. It is one of the most common of extensions." This communication always takes place at the proximal end of the midline septum passing from the deep aspect of the ulnar bursa to the metacarpal bone of the middle finger which normally separates the two spaces. Forcible injection of the tendon sheaths of the little (particularly where there is no free communication with the ulnar bursa), ring, and middle fingers ruptures their proximal cul-de-sac, and the material comes to lie in the middle palmar space and along the lumbrical canals. Pus follows the same course. Similar injections in the tendon sheaths of the index finger and thumb (particularly where there is no free communication of the latter with the radial bursa) finds the material passing to the thenar space and along its lumbrical canal to the radial side of the base of the index finger, and again pus follows the same course. It is only by continued forcible injection that the mass is made to pass from one space to the other. Furthermore, such injection finds the mass passing from the middle palmar space into the forearm deep to the tendons where it comes to lie in Parona's space. But such extension must be uncommon clinically due to the obliteration of the canal at the wrist by inflammatory adhesions. The injection mass can never be forced into the forearm from the thenar space, rather does it commonly pass between the oblique and transverse heads of the adductor pollicis muscle to come to lie ultimately in the very cellular interval between this muscle and the first dorsal interosseous muscle. It is always wise, therefore, to inspect this interval in evacuating a thenar space abscess. Clinically, such widespread dissemination as is found in injection experiments would indeed represent a very late infection, and it should be possible to diagnose early involvement of these spaces before the entire hand is filled with pus. The diagnostic features in early middle palmar space involvement of loss of concavity of the palm, acute tenderness over the anatomic outlines of the space, no forearm swelling, swelling along the lumbrical canals with fullness at the webs, flexion of digits in decreasing degree from the little to the index finger (the index may have considerable voluntary movement), no thumb signs, no maximum point of tenderness at the

proximal cul-de-sac of the tendon sheaths, and loss of abduction and adduction in the little, ring, and middle fingers are understandable in light of the anatomy of the region. The last named feature must be emphasized. The interosseous muscles in the two intermetacarpal spaces between the three ulnar digits form the floor of the middle palmer space. These muscles, therefore, lie immediately beneath the pus; they are picked out early and remain paralyzed for a long time, and this paralysis is one of the most important single diagnostic features of involvement here. Kanavel advocated a web incision with the passage of a hemostat along the lumbrical canal for evacuation of primary collections here. The fact that most such collections are secondary to a focus elsewhere (usually a ruptured tendon sheath) necessitates an incision through which both collections may be explored. A transverse incision in the distal palm along the distal transverse flexion crease is ideally suited since it makes possible both the further evacuation of the involved tendon sheath and the middle palmer space as well. The anatomy of the thenar space makes understandable the diagnostic features of balloon-like swelling over the entire thenar area which terminates rather abruptly at the midline of the palm, extreme swelling on the dorsum of the hand, no rigidity of the thumb or acute tenderness over the outlines of the sheath, no forearm swelling, exquisite tenderness over the anatomic outline of the space, flexion of the index finger but other fingers retain their mobility, and early paralysis of the adductor to the thumb in recent infections of this space. The type of incision used would depend upon whether the space were primarily or secondarily involved; in the latter instance one would wish to ascertain the adequacy of drainage of the primary focus which is frequently the index or thumb tendon sheath. The often used dorsal incision along the free fold of the web of the thumb is unanatomic since it cuts across the flexion crease and frequently leads to a retractile scar which limits abduction of the thumb. This deep crease is readily seen if one places his hand palm downwards and adducts the thumb to the side of the index finger. A palmer incision over the collection, with a dorsal counter incision if necessary, is the most anatomic because it leaves the least amount of disabling scar.

#### (h) *Dorsal subcutaneous infections:*

Infection on the dorsum of the hand and fingers is infrequent except at one site; namely, over the proximal phalanx. Because of the great accumulation of hair follicles, sweat glands, and sebaceous glands at this site, infections frequently occur here.

They are true carbuncles. They offer no problem in diagnosis. Their proper surgical drainage, however, depends on the appreciation of the anatomy of the local subcutaneous tissue. This underlying tissue has its adipose portions disposed in two planes, a deeper horizontal portion from which project the vertical portions or columnae adiposae which lie in close relationship with the hair follicles and sebaceous glands and thus connect these columns with the skin. When infection invades the subcutaneous tissue via the hair follicle or sebaceous gland, it tracks downward along the columnae adiposae to the deeper horizontally disposed layer. From here it spreads centrifugally to attain other columnae and is again returned to the surface. This accounts for the numerous orifices seen in such infections; the skin surface may look like a sieve with pus exuding from many points. One cannot determine by color changes seen on the skin surface the amount of lateral spread of the infection in the deep horizontal plane. Actually the deeper infection is more extensive than is exhibited on the surface. This necessitates a cruciate incision with undercutting of the four flaps so that one gets well outside the zone of round cell infiltration, since it is only by this means that the deeper collections may be evacuated. This is contrary to the ordinary conception, since in other conditions every effort is made to preserve intact the zone of round cell infiltration. Occasionally such an infection starts over the dorsum of the middle phalanx and spreads by a sinus tract to open again on the surface over the dorsum of the proximal phalanx. In such an instance one should not make a long linear incision laying the entire tract wide open because it will lead to a bad scar which may partially or completely immobilize the proximal interphalangeal joint. One has only to observe carefully the transverse nature of the skin lines on the dorsum of a finger to appreciate this fact. A transverse incision at both orifices of the tract, with a soft flat rubber drain extending subcutaneously between these two incisions, is more in keeping with the ideal to be always sought in making an incision into the hand—to maintain intact, insofar as it is humanly possible, the structural and functional integrity of this most important member.

#### REFERENCES

1. Moorhead, J. J.: Surgical management of industrial injuries. *Indust. Med.*, xii:140-143 (March) 1943.
2. Accident Facts. Published by National Safety Council, Inc., Chicago, 1942.
3. Jones, F. W.: *The Principles of Anatomy as Seen in the Hand*. Second edition. Williams and Wilkins Company, Baltimore, 1942.
4. Kanavel, A. B.: *Infections of the Hand: A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand, and Forearm*. Seventh edition. Lea and Febiger, Philadelphia, 1939.
5. Bunnell, S.: *Surgery of nerves of hand*. *Surg., Gynec. & Obst.*, xlv:145-152 (February) 1927.



6. Bunnell, S.: Repair of nerves and tendons of hand. *Jour. Bone & Joint Surg.*, x:1-26 (January) 1928.
7. Bunnell, S.: Physiological reconstruction of thumb after total loss. *Surg., Gynec. & Obst.*, lii:245-248 (February) 1931.
8. Bunnell, S.: Contractures of hand from infections and injuries. *Jour. Bone & Joint Surg.*, xiv:27-46 (January) 1932.
9. Bunnell, S.: Opposition of thumb. *Jour. Bone & Joint Surg.*, xx:269-284 (April) 1938.
10. Bunnell, S., and Boyes, J. H.: Nerve grafts. *Am. Jour. Surg.*, xlv:64-75 (April) 1939.
11. Bunnell, S.: Treatment of tendons in compound injuries of hand. *Jour. Bone & Joint Surg.*, xxiii:240-250 (April) 1941.
12. Bunnell, S.: Surgery of intrinsic muscles of hand other than those producing opposition of thumb. *Jour. Bone & Joint Surg.*, xxiv:1-31 (January) 1942.
13. Mayer, L.: Recent studies in anatomy and physiology of tendons. *Jour. Am. Med. Assn.*, lxxi:1198 (October 12) 1918.
14. Koch, S. L.: Tendon suturing. *Indust. Med.*, xi:327-328 (July) 1942.
15. Mason, M. L.: Pitfalls in management of hand infections. *Minnesota Med.*, xx:485-495 (August) 1937.
16. Mason, M. L.: Nerve and tendon injuries of hand. *Indust. Med.*, xi:61-66 (February) 1942.
17. Auchincloss, H.: Surgery of the hand. Nelson New Loose-Leaf Surgery. Volume III. Thomas Nelson and Sons, New York.
18. Hart, D.: Tendon suture and plastic repair. Nelson New Loose-Leaf Surgery. Volume III. Thomas Nelson and Sons, New York.
19. Souttar, H. S.: Injuries of the peripheral nerves. In *Surgery of Modern Warfare*, edited by H. Bailey. Volume I. Williams and Wilkins Company, Baltimore, 1941.
20. Mouat, T. B., and Hart, A. T.: Wounds of tendons. *Ibid.*
21. Mouat, T. B.: Wounds of the hand. *Ibid.*
22. Mouat, T. B.: Infected wounds of the hand. *Ibid.*
23. Pollock, L. J., and Davis, L.: Peripheral Nerve Injuries. Paul B. Hoeber, Inc., New York, 1933.
24. Davis, J. S., and Finesilver, E. M.: Dupuytren's contraction, with note on incidence of contraction in diabetes. *Arch. Surg.*, xxiv:933-939 (June) 1932.
25. Kanavel, A. B.: Congenital malformations of hands. *Arch. Surg.*, xxv:1-53 (July); 282-320 (August) 1932.
26. Bogart, F. B.: Variations of bones of wrist. *Am. Jour. Roentgenol.*, xxviii:638-646 (November) 1932.
27. Iselin, M.: *Chirurgie de la main: Plaies, infections, chirurgie réparatrice*. Masson et Cie, Paris, 1933.
28. Scheldrup, E. W.: To be published.
29. Salisbury, C. R.: Contribution to anatomy of ulnar bursa. *Canad. Med. Assn. Jour.*, xliii:430-432 (November) 1940.

## SECOND "WAR CONFERENCE" ON INDUSTRIAL MEDICINE, HYGIENE AND NURSING

St. Louis, May 8-14, 1944

The Second "War Conference" of industrial physicians, industrial hygienists, and industrial nurses will be held in St. Louis, Missouri, May 8 to 14, 1944, at the Hotel Jefferson. The participating organizations are (1) American Association of Industrial Physicians and Surgeons, (2) American Industrial Hygiene Association, (3) National Conference of Governmental Industrial Hygienists, and (4) American Association of Industrial Nurses; and theirs will be a week-long program of joint and separate meetings.

The medical subjects to be presented include welding in relation to clinical aspects and control of hazards; noise, as to medical phases and means of prevention; better health in small plants; the industrial physician's opportunity to advance medical knowledge; maladjustment and job environment; women in industry; and panel discussions on "Who Can Work?" and other timely questions. Two clinics, one surgical at Barnes Hospital, and the other medical, at Desloge Hospital, will be featured among the morning sessions.

The Hotel Jefferson offers accommodations, but reservations are coming in very fast, and so, to be sure of your own, write to John Reinhardt, Chairman "War Conference" Housing Bureau, Syndicate Trust Building, St. Louis, Missouri, without delay.

## Additional Annual Session News

### BROADLAWNS PRECONVENTION CLINIC

Broadlawns General Hospital

Wednesday Afternoon, April 19, 1944

- 12:30-1:15 Luncheon—Compliments of Polk County Medical Society
- 1:25 Greetings  
Christian B. Luginbuhl, M.D., President,  
Polk County Medical Society  
Welcome to Broadlawns  
Arthur E. Merkel, M.D., Chief of Staff,  
Broadlawns General Hospital
- 1:30-2:30 Penicillin in Treatment of Severe Staphylococcic Bacteremia with Complications  
Lee F. Hill, M.D.  
Lewis M. Overton, M.D.  
Penicillin in Treatment of Sulfa-resistant Gonorrhea  
Clifford W. Losh, M.D.
- 2:30-2:45 Simplified Treatment of Diabetes  
Edwin B. Winnett, M.D.
- 2:45-3:15 A New Blood Disease—Acute infectious Lymphocytosis. Differential Diagnosis from Lymphatic Leukemia, Infectious Mononucleosis and other Lymphocytoses  
Richard F. Birge, M.D.  
Alonzo L. Jenks, Jr., M.D.  
Diagnosis of Atypical Pernicious Anemia  
Alonzo L. Jenks, Jr., M.D.
- 3:15-3:30 Diagnosis and Treatment of Atypical Pneumonias  
John C. Parsons, M.D.
- 3:30-4:00 Thoracic Surgery in Tuberculosis  
Frank W. Fordyce, M.D.  
John Russell, M.D.
- 4:00-4:30 Indications and Technic for Parenteral Fluid Administration  
Charlotte Fisk, M.D.
- 4:30-4:45 Technic of Massive Skin Grafting  
Howard D. Gray, M.D.
- 4:45-5:00 The Common Diseases of the Eye, Ear, Nose and Throat  
Benjamin F. Kilgore, M.D.

The clinic will be started promptly at one-thirty and run continuously, adhering strictly to the time schedule. Ward rounds will be arranged for visiting doctors who wish to see patients on a particular service. Tours of the hospital, also, will be conducted for those who wish to see the new building.

### PRECONVENTION GOLF TOURNAMENT

The Preconvention Golf Tournament will be held at the Golf and Country Club in Des Moines Wednesday afternoon, April 19, starting at 1:00 p. m. Prizes for the various flights will be offered. Dinner will be served in the evening, and all persons planning to attend are asked to make reservations so that the chairman will be able to make satisfactory arrangements. Write Dr. George A. May, Bankers Trust Building, Des Moines 9, Iowa.

(Continued on page 167)

STATE DEPARTMENT OF HEALTH

*Walter L. Diering*

REVISED COPY OF RULES AND REGULATIONS

A copy of Rules and Regulations (1943) of the State Department of Health, with insertion of Appendix A and of the table summarizing rules pertaining to the period of communicability, period of isolation, etc., was mailed during March to all physicians of Iowa.

Physicians are requested to return by mail to the Iowa State Department of Health, 1027 Des Moines Street, Des Moines 19, Iowa, any copy of Rules and Regulations which does not contain Appendix A.

ISOLATION PERIOD FOR SCARLET FEVER

On March 11, 1944, an Iowa physician forwarded the following letter to the State Department of Health:

"Dear Sirs:

"Yesterday I was informed that one of the nearby doctors is releasing his patients from scarlet fever quarantine in less than three weeks. It is my understanding that a minimum of three weeks is specified by law, but if I am mistaken on this point I want to be corrected, since some of my patients are objecting to the three week period when some of their neighbors are being released in less time.

"On page 61, in the last paragraph, of the booklet on Rules and Regulations of the State Department of Health it states: 'Isolation:—maintained in each case until the end of the period of communicability. If medical inspection is not available, isolation for 21 days from the onset for uncomplicated cases.' Am I to understand by this that under regular medical care patients may be released earlier than 21 days?"

The reply to the above letter included statements as follows:

The minimum period of isolation for scarlet fever is twenty-one days from onset of illness. This regulation is set forth in Appendix A of Rules and Regulations (1943) of the Iowa State Department of Health, copy of which has been forwarded under separate cover.

The term "medical inspection" has reference to

medical supervision, as of a school group, rather than to the care of an individual patient by the attending physician.

SCARLET FEVER MORBIDITY AND MORTALITY

With the report of 1,620 cases of scarlet fever for January, February, and March (through March 19), 1944, as compared with 964 cases for the first three months of 1943, prevalence of this disease appears again to be on the upgrade. The following table shows reported cases of scarlet fever and deaths from this cause in Iowa for the year 1943 and the preceding ten-year period (1933-1942).

Year	Cases	Deaths
1933	1,990	45
1934	2,637	61
1935	3,771	68
1936	5,805	83
1937	7,860	107
1938	5,744	48
1939	4,009	23
1940	2,560	21
1941	1,910	9
1942	1,880	9
1943	2,483	16

STREPTOCOCCAL INFECTIONS IN A NAVAL TRAINING STATION

"Whenever an epidemic of streptococcal infection strikes a civilian population group, it is practically always caused by some single strain of streptococcus of high disseminating ability, either one already present which has recently increased its distributing powers or one newly introduced into the community from without. Endemic infections, on the other hand, are usually due to a number of different types of low disseminating ability which are part of the streptococcal flora of the community."

The above quotation is the introductory paragraph of an article by Schwentker and associates<sup>1</sup> published in a recent issue of the *American Journal of Public Health*. The article, entitled "Streptococcal Infections in a Naval Training Station," is based on results of throat cultures for strep-



tococci, taken from a company of 131 men during the period beginning April 2 and ending May 7, 1943.

Throat cultures were secured the first day of study (starting in the third week of training) and twice a week during the following weeks. Sick call was conducted each morning at eight and a throat culture was obtained from each individual who complained or showed evidence of respiratory infection. The streptococci, when isolated and found to belong to group A, were typed by the Lancefield method. A Dick test was also performed at the beginning and end of the period of study.

The company comprised 131 persons, 40 of whom developed some type of streptococcal infection during the five-week period. Only 14 were sick enough to require bed care. The streptococcal infections included scarlet fever, tonsillitis, pharyngitis, pharyngolaryngitis, laryngitis and peritonsillar abscess. Two cases of scarlet fever occurred in the company during the period of study, *Streptococcus hemolyticus* of type III being found in both instances. (Type XIX was also found to be a frequent cause of scarlet fever in other companies at the Naval Training Station.) Hemolytic streptococci of types I and VI were responsible for 30, or about 70 per cent, of streptococcal infections observed. These two types of organism (I and VI), caused most of the cases of tonsillitis, pharyngitis, and other upper respiratory conditions as above listed, but strangely enough did not cause scarlet fever.

Schwentker and coworkers observed two major kinds of streptococci at the station:

1. Types like I and VI, highly pathogenic and

producing tonsillitis, pharyngitis, etc., but not scarlet fever.

2. Types like III and XIX, pathogenic and causing scarlet fever.

A striking observation during study at the Naval Training Station was the high carrier rate of streptococci, "Ordinarily in normal civilian populations the rates are not over 10 per cent, and even during epidemic times rarely exceed 40 per cent. But in this case, as high as 69 of every 100 individuals were carriers of streptococci and 66 of these harbored strains of known pathogenicity."

This significant article on the subject of streptococcal infections lists the following significant findings:

1. "Seventy-three (of 131) men did not develop illness, although as many as five different types of hemolytic streptococci were found in throat cultures as taken during the study period of five weeks.

2. "The Dick reaction apparently played no rôle in this resistance, since the amount of illness among Dick negative men was proportionately the same as among those Dick positive.

3. "Some individuals resisted infection with one type of streptococcus but became ill when seeded with another type.

4. "Several persons developed two illnesses due to two different types of streptococci.

5. "No person became ill twice from the same type organism."

#### REFERENCE

1. Schwentker, F. F., Hodes, H. L., Kingsland, L. C., Jr., Chenoweth, B. M., Jr., and Peck, J. L.: Streptococcal infections in a naval training station. *Am. Jour. Pub. Health*, xxxiii:1455-1460 (December) 1943.

#### PREVALENCE OF DISEASE

Disease	Feb. '44	Jan. '44	Feb. '43	Most Cases Reported From
Diphtheria	19	22	6	Woodbury
Scarlet Fever	718	389	340	For the State
Typhoid Fever	1	3	3	Wapello
Smallpox	3	2	2	Clayton, Lucas, Pottawattamie
Measles	1515	521	613	For the State
Whooping Cough	86	144	97	Cerro Gordo, Pottawattamie
Brucellosis	15	24	32	Polk
Chickenpox	313	261	392	For the State
German Measles	11	12	294	Dallas, Des Moines, Webster
Influenza	150	7462	4	Cedar, Fayette, Winneshiek
Malaria	0	0	0	None
				Black Hawk, Henry, Pottawattamie
Meningitis	23	8	0	Black Hawk, Dubuque, Mills,
				Washington
Mumps	123	83	428	Black Hawk, Clinton, Lee, Winneshiek
				None
Pneumonia	87	270	99	For the State
Poliomyelitis	0	0	2	For the State
Tuberculosis	60	401	3	For the State
Gonorrhea	141	141	164	For the State
Syphilis	229	212	243	For the State

# The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

LEE FORREST HILL, Editor.....Des Moines  
DENNIS H. KELLY, Associate Editor.....Des Moines

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OFFICE OF PUBLICATION, DES MOINES 9, IOWA

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## SECOND ANNUAL ALL-IOWA CITY ISSUE

For the second time the JOURNAL is pleased to present to its readers an issue in which all of the scientific papers come from the faculty of the medical college at Iowa City. The April 1943 JOURNAL was the first all-Iowa City number, and the acclaim with which it was received resulted in the Publication Committee requesting the faculty to repeat again this year. The 1944 papers represent a good variety of interesting and informative subjects, splendidly prepared, and will, we are sure, make this edition one of the most cherished of the year.

In originally asking the medical college at Iowa City to prepare the papers for a special issue, the Publication Committee had in mind the appeal such an edition would have for our readers in military service, and especially those who are also alumni of Iowa and are in military service abroad. We envisaged more than one episode in which a "medico" in his pup tent on some distant island or foreign shore might find occasion to show this issue to his buddies and tell them with a touch of excusable pride in his voice, "That's my school." Furthermore, we are sure all the Iowa alumni who receive this copy will have a few nostalgic memories aroused by reading the opening remarks of Dean MacEwen, the excellent article by Arthur Steindler, and by finding other familiar faculty names among the authors. Also, we would call your attention to Dr. Bierring's article in the History of Medicine section.

Then, too, it was felt another wartime situation could partially be met by an issue exclusively from Iowa City. Before the war physicians from all over the state, both alumni and non-alumni, were accustomed to visiting the University on various occasions to check up on some special point of informa-

tion or perhaps to attend a clinic. Now, with the war on, such informal visits are pretty much out of the question for either civilian or military physicians. Both are too busy at their respective jobs. Certainly this lack is partially overcome, at least, by these annual editions taking the work of the departments to the desks of the physicians.

Those of us who are not alumni of the University, but who have spent our medical careers in the state, are justly proud of the high-ranking position the College of Medicine of the Iowa University occupies among the medical colleges of the country. All of us are happy to accept a little of the reflected glory which we hope will come from the use of the JOURNAL's pages in once again calling attention to the high quality of educational standards existing at the University as evidenced by the published papers. Finally, it is to be hoped that the special issues may form one of the strongest links in the chain uniting the profession of the state with its medical university.

## PRESIDENT'S MESSAGE ON THE ANNUAL SESSION

The program of the state meeting to be held in Des Moines Thursday and Friday, April 20 and 21, appeared in the March JOURNAL and you have no doubt seen that it differs from the programs of the past few years. In planning it, the Committee on Scientific Work and the section chairmen had the general practitioner rather than the specialist in mind. We first considered the things he encounters most frequently in his practice and, second, the difficulties which confront him in these war days. In the field of medicine we felt the most important subject was heart disease, and in surgery it seemed that with the greatly increased birth rate, obstetrics was most important.

Consequently, instead of attempting to cover the whole field of medicine and surgery, we planned two section meetings which would cover these subjects thoroughly and give the general practitioner something definite to help him. We realized this was a radical departure from the usual program, but we hoped it would be helpful in these days when many physicians have to work without consultation.

We planned to devote one session to subjects of general interest, and although some shifting of time had to be made, the original idea was carried out. We realized that the job facing all of us now is to win this war as fast as possible. The current appraisal of our manpower reveals that we are short of men tough enough "to take it." The large number of men discharged for psychoneurotic disability is alarming. The physician in civilian practice has been and will be called upon to



help with this problem, and for this reason, the program committee invited a doctor from the Surgeon General's office to speak on this subject at the annual meeting.

Large industrial plants are becoming more and more conscious of the value of their workers' health, and are adding health programs. We have a speaker to tell you about developments in industrial medicine.

The Wagner-Murray-Dingell Bill and the EMIC Program have focused attention on federal legislation. Dr. Adson will discuss the new Council on Medical Service and Public Relations and what is being done in Washington. Dr. Walter H. Judd, Congressman from Minnesota, has an international concept and he will give you a message on postwar planning which you can't afford to miss.

The program committee made two other changes in the usual procedure of the annual session. In order to give more time for discussion of important matters, the House of Delegates will be called to order at eight o'clock Wednesday evening, April 19, the day before the meeting proper opens. Second, instead of having the annual banquet, the committee felt the doctors of the state would appreciate a chance to relax and visit, so it arranged a smoker Thursday night to which all physicians are invited.

We are all of us working harder today than ever before. We face new conditions. We need to get together to discuss our mutual problems and to benefit from the interchange of ideas. It was with this in mind that your program committee formulated its plan for your annual meeting. We hope it will meet with your approval.

---

#### ATTENTION, DOCTORS OF IOWA!

April 20 and 21 are the days. Des Moines is the city. Hotel Fort Des Moines is the place. Are you all set to be there? Read President Woodward's message in the preceding editorial about the scientific program that has been prepared for you. But there are other reasons why every member of the Iowa State Medical Society who possibly can should attend the Ninety-third Annual Session. Not the least of these is that you're exhausted and tired after a winter of the longest hours and hardest days you've ever put in. A couple of days away from the old grind will do you a world of good, maybe make you see things in a different light when you get back home, and perhaps you'll get a clue while you're away that will help you solve that case about which you've been worrying for weeks. Then, too, you have a double duty to perform at the convention this year.

A lot of the boys are away in military service and can't get back to speak their minds about the grave problems confronting medicine. They're expecting you to represent them. They want to come back after the war is over to private practice as they left it. They don't want to find that the government has moved into partnership with them while they've been away. You mustn't let them down. Dr. Adson of the Mayo Clinic and Dr. Judd of Washington will be at the meeting to inform you regarding the whole situation; but *you* have to make the decisions.

It would be fine if you could get away a day earlier—on the 19th. Take the morning to get to Des Moines, either by train or car, whichever way you are coming. Two programs have been planned for your entertainment during the afternoon, and you can take your choice. Out at the new Broadlawns General Hospital, on Harding Road just east of the intersection of Harding Road and Hickman Avenue, the Polk County Medical Society will have lunch ready for you at 12:30 p. m. From 1:30 to 5:00 the Broadlawns staff will put on a series of clinical demonstrations which have been arranged strictly from the point of view of practicability. After the clinic you may want to look through the hospital before going downtown to dinner. Or, if you feel that what you need is a little exercise chasing one of those little white pills around on the green grass, the golf committee has arranged a tournament at the Golf and Country Club with prizes and everything.

Don't forget that the House of Delegates meets in the evening, so if you are a delegate be sure to report at the Hotel Fort Des Moines by 8:00 p. m. whether you play golf or attend the clinics.

Lee Woodward has already told you about the scientific program, and if you've looked over the list of guest speakers you know there are some topnotch addresses in store for you from them as well as from our own members. Acquisition of medical knowledge is literally leaping ahead these days and no physician can miss the opportunity offered by this Session for being brought up to date. Don't fail, also, to visit the scientific and commercial exhibits. There's much to be learned from each of them and each group has gone to a lot of work to prepare something of interest for you. Also look over the list of luncheon meetings and plan to attend the one in which you are interested. Presumably the one Friday noon conducted by Adson and Judd on economic matters will be most interesting.

Then there's the stag smoker on Thursday evening at 8:00 o'clock, at which you're the guests of the Polk County Medical Society. We haven't

been told what the entertainment is to be, but we have a hunch that "relaxation" is to be the password.

So forget that idea that you just can't get away this year. You're needed! You're the backbone of the practicing profession of America. You've got to protect it, and you've got to protect it for that confrere of yours who can't be here to do it for himself.

Be seeing you at the Ninety-third Annual Session! 'Til then, so long.

#### **EASTER SEAL SALE OF THE IOWA SOCIETY FOR CRIPPLED CHILDREN AND THE DISABLED**

An announcement has been sent us by the Iowa Society for Crippled Children and the Disabled about its fund raising campaign which occurs between March 16 and April 9. This is a mail campaign known as the Easter seal sale. Letters containing bright Easter seals and a statement of the society's achievements are sent to Iowa homes and schools.

With the announcement came an explanation of the program and policies of the society. It is a state-wide, private, voluntary, nonpolitical organization. Its stated purpose is to provide aid and service to physically handicapped persons of any age; to serve many types of disabilities; and to cooperate with all persons and groups serving handicapped individuals without duplication of available resources. The society has expressed appreciation for the good will and help in carrying out its activities received from the medical profession.

Major projects reported are the provision of home employment for home-bound disabled adults and summer camping for physically handicapped children. Special education is emphasized by such assistance as correspondence lessons, special textbooks, speech correction, and bedside teachers. Recently the society has organized a club for parents of cerebral palsied children.

Assistance to individuals varies with the need. None is given, however, without full clearance with the proper professional authority to verify need and suitability.

The Easter seal sale is the only source of funds, except for gifts from individuals and service clubs. The society receives no governmental or Community Chest help. Activities of the Iowa Society for Crippled Children and the Disabled are carried on through organized county committees or directly from the headquarters office, 404 Plymouth Building, Des Moines. Henry K. Peterson, Council Bluffs attorney and member of the School Code Commission, is president; Mrs. Dorothy Phillips is executive secretary.

#### **VACCINE INEFFECTIVE IN PROPHYLAXIS OF "COLDS"**

In spite of the fact that no scientific proof whatever exists that so-called cold vaccines are effective in the prevention of "colds," thousands of people swear by them and physicians continue to prescribe them. The most which has ever been scientifically claimed for these vaccines is that they may have some beneficial influence upon secondary bacterial invaders. But here, too, definite proof of any such action is lacking.

One of the top causes of absenteeism is respiratory tract infection. At times like the present when every effort must be made to maintain production schedules, it is not surprising that further attempts should be made to investigate the "cold vaccines." One such is that reported by McGee et al<sup>1</sup> among workers in several industrial plants situated in different parts of the country. A total of 409 persons were given subcutaneous injections of vaccine from two well known commercial houses, while 653 persons were given equally well known oral types of vaccine. Other groups were given placebos both subcutaneously and by mouth, and 228 untreated persons served as controls. It was possible for the authors to keep fairly close tab on all the persons during the period of this experiment so that the number of colds experienced by each and the number of days of work lost by each as a result of colds could be approximated reasonably accurately. In agreement with other similar studies, McGee et al concluded: "No clearly evident protection against the cold and related acute respiratory infections can be demonstrated in the results of this clinical trial at mass immunization. The indiscriminate use of cold vaccine now available is not the answer to the problem of industrial absenteeism due to acute respiratory infections." Thus, once again the futility of using vaccines composed of known bacterial organisms to create antibodies against infections of virus etiology has been demonstrated.

Eventually, when more knowledge has been gained about virus diseases, some effective method of immunization may be developed. In the meantime physicians and public health officials would do well to face the scientific facts known about colds, and to tell these facts honestly to their patients and to the public at large. The number one fact is that "colds" are contracted solely as the result of exposure to other persons who have colds. Draughts, wet feet, wet hair, absence of warm clothing, fatigability, avitaminosis, and improper diet all have little if anything at all to do with the transmission of respiratory tract infections such as influenza and colds. Thus, when public health officials presume to advise the public



about what to do to avoid catching a cold in times of epidemics, the one bit of information worth stressing is to avoid those with colds and, conversely, for those with colds to avoid infecting others. All the rest of the usual "line" is so much falderal. If colds were accompanied by even a slight identifying rash, the cause and effect would have been thoroughly understood by everyone long ago. The sooner it is generally understood that colds are communicable in exactly the same way as measles, and that the only effective prophylaxis is avoidance of exposure, the better it will be for everyone concerned.

J. McGee, L. C., Andes, J. E., Plume, C. A., and Hinton, S. H.: "Cold vaccines" and the incidence of the common cold. *Jour. Am. Med. Assn.*, cxxiv:555-557 (February 26) 1944.

### ACTION IN TIME MEANS LIFE

By C. C. LITTLE, Sc.D.

Managing Director of the American Society for the Control of Cancer

It has been stated that cancer is the most curable of the fatal diseases. That is an interesting statement and is not a contradiction of itself as it might at first seem to be. Its justification lies in the nature of cancer itself, because cancer in its early stage is localized, limited, and capable of being completely removed or destroyed.

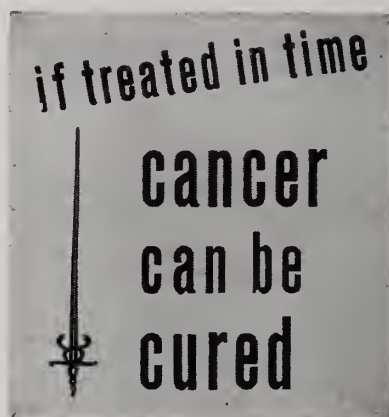
Cancer in its late stages is as sinister as a disease can be. It is widespread and has invaded surrounding tissues with ill-defined irregular strands of abnormal growth. If untreated and unchecked, cancer is uniformly and universally fatal. It is this grim fact that brings out the contrast between early and late stages of the disease.

The picture, however, is far from being a gloomy one. Each year more and more people are learning that "time" is the key word in cancer control. Each year thousands more people are coming to their doctor with very early signs and symptoms that may mean cancer. As a result they are being treated in time to prevent cancer or to cure it if it has started. The value of annual or semi-annual physical examination is becoming clearer to an ever-increasing number of men and women. The Women's Field Army of the American Society for the Control of Cancer is growing yearly at a faster rate. Today three hundred thousand women throughout the United States are enlisted in the fight against cancer—the fight to bring knowledge and confidence into every home in the country.

Cancer Prevention Clinics, where perfectly well persons report periodically for a physical "check

up," have been established in some cities and are doing excellent work. The idea will spread and grow. Lives will be saved, suffering avoided. Death will be cheated. Americans of the future will visit such clinics as a matter of routine.

It is well when the world is darkened by the fierce storm clouds of war to remember that there are men and women working quietly but tirelessly to allay fear and to bring peace and hope to hundreds of thousands of people—to your friends and mine—to your family and mine—perhaps to you and me ourselves.



**Learn the danger signals!  
Get early diagnosis and  
prompt treatment. Delay is  
dangerous! Enlist as a Vol-  
unteer in the Women's Field  
Army of your State and sup-  
port its activities for Cancer  
Control.**

**AMERICAN SOCIETY FOR  
THE CONTROL OF CANCER  
350 MADISON AVENUE, N. Y. 17, N. Y.**

For thirty years the American Society for the Control of Cancer at 350 Madison Avenue, New York City, has been the leader in this campaign. It will gladly provide, without charge, information which you may desire. It asks you to enlist in the fight against cancer for your own sake as well as for those whom you may be able to help. Do not delay. Remember that in cancer "action in time means life."

### SPECIAL CAMPAIGN FOR THE WOMEN'S FIELD ARMY

Seven years ago the Council of the Iowa State Medical Society fostered the Iowa Division of the Women's Field Army. It was specified at that time that the activities of the Field Army were to remain under the control of the medical profession. This was because of past experiences with other health organizations which, having co-operated with the profession during their embryonal stages, broke away from its control when puberty was reached. The Women's Field Army officers have religiously lived up to their part of the agreement but feel that the doctors have not given them their full support. As an indication they point to the fact that less than one hundred doctors contributed to the financial support of the cancer educational program in 1943.

At a meeting of the Executive Board of the Women's Field Army in January, it was held that the supposed indifference of the medical profession was only apparent and not real. To prove this contention the Board members voted to make a special appeal to the medical profession for funds to carry on the cancer educational program this year, and very shortly the members of the Iowa State Medical Society will be solicited by mail.

During the discussion at the meeting it was pointed out that some health organizations, which are independent of the medical profession, annually obtain hundreds of thousands of dollars in Iowa while last year the Women's Field Army, which is controlled by the Society, received only \$1,800.00. It was the belief of the committee members that Iowa doctors and their wives should give financial support to the Women's Field Army because the organization is peculiarly their own. It is hoped that at least \$2,500.00 will be contributed by the doctors. That is about one dollar per capita of the active profession in Iowa. In this manner we shall demonstrate that the profession is vitally interested in solving the cancer problem.

## Additional Annual Session News

(Continued from page 160)

### IOWA ANESTHESIOLOGICAL SOCIETY

The Iowa Anesthesiological Society will hold its annual meeting April 20, 1944, in Dining Room 2 at the Hotel Fort Des Moines in Des Moines. Luncheon will be served at 12:15 p. m., and will be followed by a talk by Richard Charles Adams, M.D., Mayo Clinic, Rochester, Minnesota, on the subject: Rational Use of Pentothal, with Some Remarks on Venipuncture. The annual business meeting and election of officers will be held at the conclusion of the talk by Dr. Adams.

### MENTAL HYGIENE MEETING

Persons interested in the formation of a state mental hygiene committee are invited to attend an organization meeting at the Hotel Fort Des Moines during the annual session. The group will meet in the South Ball Room Thursday, April 20, from 9:00 to 11:00 a. m. The program will include the adoption of a constitution, election of a board of fifty directors and officers of the society, and talks by two speakers, Lt. Col. Malcolm J. Farrell, M.C., of Washington, D. C., and Andrew H. Woods, M.D., of Iowa City.

### MILITARY SURGEONS DINNER

The Military Surgeons Club extends a cordial invitation to all World War II medical personnel present at the annual session to attend the Military Surgeons Dinner, Thursday evening, April 20, at six o'clock at the Fort Des Moines Hotel. Lieutenant Colonel Malcolm J. Farrell, M.C., of Washington, D. C., will be the guest speaker.

### MEDICAL AND SURGICAL RELIEF COMMITTEE TO HAVE BOOTH AT ANNUAL SESSION

The medical aid program of the Medical and Surgical Relief Committee of America will be demonstrated at a booth during the forthcoming session of the Iowa State Medical Society.

Iowa doctors are urged to donate their spare or discarded surgical instruments and surplus drugs as a sorely-needed contribution to the Committee. Cartons to collect the donations will be placed at the Committee exhibit. All salvaged supplies, after rigid inspection and reconditioning when necessary, will help equip the medical kits the Committee is furnishing in answer to requests from armed and civilian units of the Allies, from war-zone hospitals, needy welfare agencies, and community nurseries in this country and abroad.

Remember, before you leave for the convention, look through your cabinets and your office closets for idle instruments and medicines, and turn them over to the Committee.

Dr. Walter L. Bierring is chairman of the Iowa chapter of the Medical and Surgical Relief Committee.

**Your State Medical Society  
meets in  
Annual Session April 20 and 21  
Hotel Fort Des Moines  
Des Moines**

**Plan also to attend the  
Broadlawn Preconvention Clinic  
or the  
Preconvention Golf Tournament  
April 19**



# Roster of Iowa Physicians in Military Service

As of March 27, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.) ..... A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Trenton, N. J.) ..... Capt., A.U.S.  
Huston, M. D., Centerville (Camp Robinson, Ark.) ..... Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 726, Seattle, Wash.) ..... Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (Camp Howze, Texas) ..... 1st Lt., A.U.S.  
Bickley, J. W., Waterloo (Fort Sill, Okla.) ..... 1st Lt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas) ..... Lt. Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Ottumwa, Iowa) ..... Lt. Comdr., U.S.N.R.  
Ellyson, C. D., Waterloo (Lido Beach, N. Y.) ..... Lt., U.S.N.R.  
Erickson, M. G., Cedar Falls (Camp Barkeley, Tex.) Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.) ..... Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (McClellan Field, Ala.) ..... 1st Lt., A.U.S.  
Ludwick, A. L., Waterloo (APO 813, New York, N. Y.) ..... Major, A.U.S.  
Marquis, F. M., Waterloo (APO 180, Los Angeles, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
Seibler, C. W., Waterloo (Colorado Springs, Colo.) ..... Major, A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.) ..... Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Ames, Iowa) ..... Lt., U.S.N.R.

## Boone County

Brewster, E. S., Boone (Camp Campbell, Ky.) ..... Major, A.U.S.  
Healy, M. J., Boone  
Shane, R. S., Pilot Mound (Des Moines, Ia.) Lt. Col., A.U.S.

## Bremer County

Amlie, P. J., Tripoli (Iowa City, Iowa)  
Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.) ..... Major, A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.) ..... 1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.) ..... Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (APO 9787, New York, N. Y.) ..... Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.) ..... Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho) ..... Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) ..... Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.) ..... Major, A.U.S.

## Butler County

Anderson, B. V., Greene (Fleet PO, Seattle, Wash.) Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rofls, F. O., Parkersburg (Springfield, Mo.) ..... 1st Lt., A.U.S.

## Calhoun County

Grinley, A. V., Rockwell City (APO 507, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.) ..... Capt., A.U.S.  
Peek, L. H., Lake City (Jefferson Barracks, Mo.) ..... Capt., A.U.S.  
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (Camp Carson, Colo.) ..... 1st Lt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Barkeley, Texas)  
Anneberg, W. A., Carroll  
Cochran, J. L., Carroll (Gulfport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Camp Swift, Texas) ..... Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.) ..... Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.) ..... A.U.S.  
Tindall, R. N., Coon Rapids (APO 948, Seattle, Wash.) ..... Major, A.U.S.  
Wyatt, M. R., Manning (Camp Campbell, Ky.) ..... Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (APO 4826, New York, N. Y.) ..... Major, A.U.S.  
Longstreth, C. M., Atlantic (Norman, Okla.) Lt. Comdr., U.S.N.R.  
Needles, R. M., Atlantic (APO 9649, New York, N. Y.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.) ..... Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) ..... Lt., U.S.N.R.  
Mosher, M. L., West Branch (APO 560, New York, N. Y.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Fort Sam Houston, Texas) ..... Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Brigham City, Utah) ..... Capt., A.U.S.  
Egloff, W. C., Mason City (Chandler, Ariz.) ..... Capt., A.U.S.  
Flickinger, R. R., Mason City (Tuscaloosa, Ala.) ..... Capt., A.U.S.  
Hale, A. E., Dougherty (Camp Shelby, Miss.) ..... Capt., A.U.S.  
Harris, R. H., Mason City (Dyersburg, Tenn.) ..... Capt., A.U.S.  
Harrison, G. E., Mason City (APO 365, New York, N. Y.) ..... Col., A.U.S.  
Houlahan, J. E., Mason City (APO 839, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 768, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (APO 9379, New York, N. Y.) ..... Capt., A.U.S.  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (Ayer, Mass.) ..... Capt., A.U.S.

## Cherokee County

Bullock, G. D., Washta (Camp Livingston, La.) ..... Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (Stewart Field, N. Y.) ..... Major, A.U.S.  
Murfhey, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (APO 38, New York, N. Y.) ..... Major, A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.

## Clay County

Adams, G. W., Royal (Fort Clayton, Panama Canal Zone)  
Edington, F. D., Spencer (Fort Devens, Mass.) ..... Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.) ..... Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Glesne, O. G., Monona (Knoxville, Iowa) ..... Capt., A.U.S.  
Rhombert, E. B., Guttenberg (Camp Wallace, Texas) ..... Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Portland, Ore.) ..... Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.) ..... A.U.S.  
Christensen, E. D., Grand Mound (Iowa City)  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) ..... Capt., A.U.S.  
Hill, D. E., Clinton (Nashville, Tenn.) ..... Capt., A.U.S.  
King, R. C., Clinton (APO 185, Los Angeles, Cal.) ..... Capt., A.U.S.  
Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Norment, J. E., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Riedesel, E. V., Wheatland (Fort Douglas, Utah)  
Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
Snyder, D. C., De Witt  
Van Epps, E. F., Clinton (Palm Springs, Cal.) ..... Capt., A.U.S.  
Waggoner, C. V., Clinton (San Bruno, Cal.) ..... Lt. Comdr., U.S.N.R.

## Crawford County

Fee, C. H., Denison (Dunnellon, Fla.) ..... Capt., A.U.S.  
Gau, A. H., Denison ..... Lt. Comdr., U.S.N.R.  
Maire, E. J., Vail (San Francisco, Cal.)  
Wetrich, M. F., Manila (APO 986, Seattle, Wash.) ..... Capt., A.U.S.

**Dallins-Guthrie Counties**

Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) Major, A.U.S.  
 Fail, C. S., Adel (Pacific Beach, Wash.) Lt., U.S.N.R.  
 Margolin, J. M., Perry (Camp Cooke, Cal.) Capt., A.U.S.  
 McGilvra, R. I., Guthrie Center (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Mullmann, A. J., Adel (Milwaukee, Wis.) Capt., A.U.S.  
 Nicoll, C. A., Panora (Camp Campbell, Ky.) Capt., A.U.S.  
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.) Capt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.) Capt., A.U.S.

**Davis County**

Fenton, C. D., Bloomfield (Camp Ellis, Ill.) Capt., A.U.S.  
 Gilfillan, G. W., Bloomfield (Oceanside, Cal.) Lt. Comdr., U.S.N.R.

**Decatur County**

Gamet, E. E., Lamoni (APO New York, N. Y.) Capt., A.U.S.

**Delaware County**

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.) Capt., A.U.S.  
 Clark, R. E., Manchester (APO 419, New York, N. Y.) Capt., A.U.S.

**Des Moines County**

Eigenfeld, M. L., Burlington (Camp Bowie, Texas) 1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.) Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.) Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (Fort Lewis, Wash.) Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.) Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.) Capt., A.U.S.  
 Sage, E. C., Burlington Lt. Comdr., U.S.N.R.

**Dickinson County**

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Henning, G. G., Milford (Camp Adair, Ore.) Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.) Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake (APO New York, N. Y.) Capt., A.U.S.

**Dubuque County**

Beddoes, M. G., Cascade (APO 932, San Francisco, Cal.) Capt., A.U.S.  
 Conzett, D. C., Dubuque (APO 9639, New York, N. Y.) Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio) Capt., A.U.S.  
 Edstrom, Henry, Dubuque (APO 9639, New York, N. Y.) Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.) Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas) 1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.) Major, A.U.S.  
 Langford, W. R., Epworth (APO 948, Seattle, Wash.) Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.) Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.) 1st Lt., A.U.S.  
 Mueller, J. J., Dubuque (Hattiesburg, Miss.) 1st Lt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.) 1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.) Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.) Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.) Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.) 1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.) Major, A.U.S.  
 Smith, C. W., Dubuque (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.) Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas) Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Lake Bluff, Ill.) Lt. Comdr., U.S.N.R.

**Emmett County**

Clark, J. P., Estherville (APO New York, N. Y.) Capt., A.U.S.  
 Collins, L. E., Estherville (Camp Dodge, Iowa) A.U.S.  
 Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.

**Fayette County**

Camp, D. E., West Union (Camp Blanding, Fla.) Capt., A.U.S.  
 Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.) Major, A.U.S.  
 Hess, A. M., West Union (Albuquerque, N. Mex.) Capt., A.U.S.  
 Sulzbach, J. F., Oelwein  
 Walsb, W. E., Hawkeye (Port Chicago, Cal.) Lt. Comdr., U.S.N.R.

**Floyd County**

Baltzell, W. C., Charles City (APO 2, New York, N. Y.) Major, A.U.S.  
 Flater, N. C., Floyd (APO 183, Los Angeles, Cal.) Capt., A.U.S.  
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Mackie, D. G., Charles City (APO 9589, New York, N. Y.) 1st Lt., A.U.S.  
 Miner, J. B., Jr., Charles City (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.) Capt., A.U.S.

**Franklin County**

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (care PM, San Francisco, Cal.) Lt., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.) Lt., U.S.N.R.  
 Walton, S. G., Hampton (APO New York, N. Y.) Capt., A.U.S.

**Fremont County**

Kerr, W. H., Hamburg (Camp Phillips, Kan.) Capt., A.U.S.  
 Marrs, W. D., Tabor (Wright Field, Ohio) Capt., A.U.S.  
 Powell, R. A., Farragut (Great Lakes, Ill.) Lt. (jg), U.S.N.R.  
 Wanamaker, A. R., Hamburg (Los Angeles, Cal.) Capt., A.U.S.

**Greene County**

Cartwright, F. P., Grand Junction (Geiger Field, Wash.) Capt., A.U.S.  
 Castles, W. A., Jr., Rippey (APO 958, San Francisco, Cal.) Major, A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.) Capt., A.U.S.  
 Jongeward, A. J., Jefferson (Fleet PO, San Francisco, Cal.) Lt. Comdr., U.S.N.R.  
 Limberg, J. I., Jr., Jefferson (APO 503 San Francisco, Cal.) Major, A.U.S.  
 Lohr, P. E., Churdan (San Diego, Cal.) A.U.S.

**Grundy County**

Rose, J. E., Grundy Center (Des Moines, Iowa) Lt. Comdr., U.S.N.R.

**Hamilton County**

Buxton, O. C., Webster City (Seattle, Wash.) 1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.) Major, A.U.S.  
 James, D. W., Kamrar (APO 782, New York, N. Y.) Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 763, New York, N. Y.) Capt., A.U.S.  
 Mooney, F. P., Jewell (London, England) Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Berkeley, Texas) Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.) Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.) Capt., A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.) Capt., A.U.S.

**Hancock-Winnebag Counties**

Dolmage, G. H., Buffalo Center (Nashville, Tenn.) Capt., A.U.S.  
 Dulmes, A. H., Klemme (APO 4778, New York, N. Y.) Capt., A.U.S.  
 Eller, L. W., Kanawha (APO 302, New York, N. Y.) Capt., A.U.S.  
 Irish, T. J., Forest City (Farragut, Idaho) Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Tucson, Ariz.) A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.) Capt., A.U.S.

**Hardin County**

Burgess, A. W., Iowa Falls (Mare Island, Cal.) Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.) 1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.) Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Ft. Sill, Okla.) Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.) Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.) 1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.) Capt., A.U.S.

**Harrison County**

Bergstrom, A. C., Missouri Valley (Ft. Benning, Ga.) A.U.S.  
 Burbridge, G. E., Logan (APO New York, N. Y.) Major, A.U.S.  
 Byrnes, C. W., Dunlap (APO Seattle, Wash.) Major, A.U.S.  
 Heise, C. A., Jr., Missouri Valley  
 Tamisea, F. X., Missouri Valley (Jefferson Barracks, Mo.) Capt., A.U.S.

**Henry County**

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) Major, A.U.S.  
 Dwankowski, Carl, Mt. Pleasant (APO 505, New York, N. Y.) Capt., A.U.S.  
 Gloeckler, E. B., Mount Pleasant (Fort McPherson, Ga.) Capt., A.U.S.  
 Hagley, B. D., Mount Pleasant (Yuma, Ariz.) Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah) Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.) Major, A.U.S.

**Howard County**

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.) Lt., U.S.N.R.  
 Nierling, P. A., Cresco (Camp Cooke, Cal.) Capt., A.U.S.

**Humboldt County**

Arent, A. S., Humboldt (Stockton, Cal.) Capt., A.U.S.  
 Coddington, J. H., Humboldt (Oklahoma City, Okla.) Capt., A.U.S.

**Ida County**

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.) Capt., A.U.S.  
 Martin, J. W., Holstein (Montgomery, Ala.) Capt., A.U.S.

**Iowa County**

McDaniel, J. D., Marengo (Camp Crowder, Mo.) Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.) Lt., U.S.N.R.

**Jackson County**

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.) Major, A.U.S.

**Jasper County**

Doake, Clarke, Newton 1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.) Major, A.U.S.  
 Ritchey, S. J., Newton Major, A.U.S.



**Jefferson County**

Castell, J. W., Fairfield (Fort Devens, Mass.).....Capt., A.U.S.  
 Gittler, Ludwig, Fairfield (APO 1001, New York,  
 N. Y.).....Lt. Col., A.U.S.  
 Graber H. E., Fairfield (Carlisle Barracks, Penn.) Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

**Johnson County**

Agnew, J. W., Iowa City (Trinidad, Colo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (Clinton, Iowa).....Major, A.U.S.  
 Boiler, W. F., Iowa City (Fort Leonard Wood,  
 Mo.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.)  
 .....Lt. Col., A.U.S.  
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (El Toro, Cal.).....Lt., U.S.N.R.  
 Cooper, W. K., Iowa City (Jefferson Barracks, Mo.) Capt., A.U.S.  
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Key West, Fla.).....Lt., U.S.N.R.  
 Dörner, R. A., Iowa City (APO 534, New York,  
 N. Y.).....Capt., A.U.S.  
 Elmquist, H. S., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt., U.S.N.R.  
 Emmons, H. S., Iowa City (Ablene, Texas).....Capt., A.U.S.  
 Flax, Ellis, Iowa City (Edwight, W. Va.).....Capt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourt, A. S., Iowa City (APO 34, New York,  
 N. Y.).....Lt. Col., A.U.S.  
 Francis, N. L., Iowa City (Annapolis, Md.) Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York,  
 N. Y.).....Major, A.U.S.  
 Hardin, R. C., Iowa City (APO 508, New York,  
 N. Y.).....Capt., A.U.S.  
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (Pepperell, Mass.).....1st Lt., A.U.S.  
 Irwin, R. L., Iowa City (Iowa City, Iowa).....Lt. Comdr., U.S.N.R.  
 January, L. E., Iowa City (McCook, Nebr.).....Capt., A.U.S.  
 Kanealy, J. F., Iowa City  
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt. (jg), U.S.N.R.  
 Longwell, F. H., Iowa City (APO 505, New York,  
 N. Y.).....Capt., A.U.S.  
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagffy, S. F., Iowa City (Memphis, Tenn.).....Lt. (jg), U.S.N.R.  
 Newman, R. W., Iowa City (Fleet PO, New York,  
 N. Y.).....Lt., U.S.N.R.  
 Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 1001, New York,  
 N. Y.).....Lt. Col., A.U.S.  
 Petersen, V. W., Iowa City (APO 689, New York,  
 N. Y.).....Col., A.U.S.  
 Sells, R. L., Jr., Iowa City (South San Francisco,  
 Cal.).....Capt., A.U.S.  
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....1st Lt., A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.  
 Stump, R. B., Iowa City (Fort Leonard Wood,  
 Mo.).....Capt., A.U.S.  
 Titus, E. L., Iowa City (Fort Banks, Mass.).....Col., A.U.S.  
 Trapasso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.  
 Trussell, R. E., Iowa City (Philadelphia, Pa.).....1st Lt., A.U.S.  
 Vest, W. M., Iowa City (APO 923, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Ward, R. H., Iowa City (Cherry Point,  
 N. C.).....Lt. Comdr., U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 923, San Francisco,  
 Cal.).....1st Lt., A.U.S.  
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

**Junior Members**

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
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 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.) 1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.) Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.  
 Brintnall, E. S., Iowa City (Colorado Springs,  
 Colo.).....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Connole J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Donnelly, B. A., Iowa City (APO San Francisco,  
 Cal.).....1st Lt., A.U.S.  
 Ehrenhaft, J. L., Iowa City (APO New York,  
 N. Y.).....1st Lt., A.U.S.  
 Englerth, F. L., Iowa City (APO San Francisco,  
 Cal.).....Capt., A.U.S.  
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman, A. L., Iowa City (Palm Springs, Cal.) 1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.  
 Harms, G. E., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.  
 Hendricks, A. B., Iowa City (Farragut, Idaho).....Lt., U.S.N.  
 Hovis, Wm., Iowa City (San Diego, Cal.).....Lt. (jg), U.S.N.R.  
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.  
 Jacobs, C. A., Iowa City (APO New York, N. Y.) Major, A.U.S.

Kaplan, Nathan, Iowa City (Carlisle Bar-  
 racks, Pa.).....1st Lt., A.U.S.  
 Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Treasure Island,  
 Cal.).....Lt. (jg), U.S.N.R.  
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.  
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.  
 McCann, J. P., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.  
 McQuiston, W. O., Iowa City (APO San Francisco,  
 Cal.).....Capt., A.U.S.  
 Moon, B. H., Iowa City  
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Odell, Lester, Iowa City (Alameda, Cal.).....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.) 1st Lt., A.U.S.  
 Pulliam, R. L., Iowa City (Portland, Ore.).....Major, A.U.S.  
 Randall, C. G., Iowa City  
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.  
 Rosenbusch, M., Iowa City (Fort Leonard Wood,  
 Mo.).....1st Lt., A.U.S.  
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.  
 Shand, J. A., Iowa City (Carlisle Barracks,  
 Penn.).....1st Lt., A.U.S.  
 Shapiro, S. I., Iowa City  
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.  
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.  
 Skouge, O. T., Iowa City  
 Towle, R. A., Iowa City (Fleet PO, San Francisco,  
 Cal.).....Lt., U.S.N.R.  
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.  
 Watters, V. G., Iowa City (Fort Leonard Wood,  
 Mo.).....1st Lt., A.U.S.  
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.  
 Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.  
 Willumsen, H. C., Iowa City (Chico, Cal.).....Capt., A.U.S.  
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.  
 Yetter, W. L., Iowa City (APO New York, N. Y.) Capt., A.U.S.  
 Zahrt, N. E., Iowa City (Miami Beach, Fla.).....1st Lt., A.U.S.  
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

**Keokuk County**

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.  
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.  
 Engelmann, A. T., What Cheer (Camp Polk, La.) Capt., A.U.S.  
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.  
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.)

**Kossuth County**

Clapsaddle, D. W., Burt (Ft. Benning, Ga.).....Capt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Williams, R. L., Lakota (San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.

**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (APO 726, Seattle, Wash.).....Capt., A.U.S.  
 Cooper, R. E., Keokuk (APO 9641, San Francisco, Cal.).....Capt., A.U.S.  
 Johnstone, A. A., Keokuk (Camp Fannin, Texas).....Col., A.U.S.  
 McKee, T. L., Keokuk (APO 922, San Francisco,  
 Cal.).....Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood,  
 Mo.).....Major, A.U.S.  
 Rankin, J. R., Keokuk (Fleet PO, New York,  
 N. Y.).....Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island,  
 Cal.).....Lt. Comdr., U.S.N.R.  
 Steffy, F. L., Keokuk (Fort Snelling, Minn.)  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.)  
 .....Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.).....Major, A.U.S.  
 Berney, P. W., Cedar Rapids (San Francisco, Cal.) Capt., A.U.S.  
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.)  
 .....Capt., A.U.S.  
 Chapman, R. M., Cedar Rapids (Chicago, Ill.).....Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.).....A.U.S.  
 Courter, W. O., Springville (APO 464, New York,  
 N. Y.).....Major, A.U.S.  
 Crew, P. I., Marion (Monroe, La.).....Capt., A.U.S.  
 Dunn, F. C., Cedar Rapids (Kearney, Nebr.).....Major, A.U.S.  
 Halpin, L. J., Cedar Rapids (Atlanta, Ga.).....Major, A.U.S.  
 Hecker, J. T., Cedar Rapids (Oxnard, Cal.).....1st Lt., A.U.S.  
 Jirsa, H. O., Cedar Rapids (APO 871, New York,  
 N. Y.).....Lt. Col., A.U.S.  
 Keith, J. J., Marion (Palo Alto, Cal.).....Major, A.U.S.  
 Kieck, E. G., Cedar Rapids (Fleet PO, San Fran-  
 cisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Kruckenberg, W. G., Mount Vernon (Portsmouth, Va.)  
 .....Lt., U.S.N.R.  
 Locher, R. C., Cedar Rapids (Camp Swift, Texas) Major, A.U.S.  
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York  
 N. Y.).....Capt., A.U.S.  
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) Major, A.U.S.  
 McQuiston, J. S., Cedar Rapids (Salina, Kan.) Major, A.U.S.  
 Meffert, C. B., Cedar Rapids (Nashville, Tenn.) Major, A.U.S.  
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Fran-  
 cisco, Cal.).....Lt., U.S.N.R.

Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) ..... 1st Lt., A.U.S.  
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) ..... Major, A.U.S.  
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Lt. Cmdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (Camp Blanding, Fla.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO, 957, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 34, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) ..... Lt. Comdr., U.S.N.

#### Louisa County

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Lucas County

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

#### Lyon County

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Capt., A.U.S.  
 Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 700, New York, N. Y.) ..... Capt., A.U.S.

#### Madison County

Boden, H. N., Truro (Fresno, Cal.) ..... Capt., A.U.S.  
 Chesnut, P. F., Winterset (Salem, Mo.) ..... Capt., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.

#### Mahaska County

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) ..... Major, A.U.S.  
 Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Ventura, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Lemon, K.M., Oskaloosa ..... 1st Lt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) ..... Capt., A.U.S.

#### Marion County

Elliott, V. J., Knoxville (Portland, Ore.) ..... Capt., A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Bastrop, Texas) ..... 1st Lt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

#### Marshall County

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) ..... Major, A.U.S.  
 Meyer, M. G., Marshalltown (Ft. Geo. Meade, Md.) ..... Major, A.U.S.  
 Noonan, J. J., Marshalltown (APO 928, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 730, Seattle, Wash.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (APO 12726, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (Portland, Ore.) ..... Capt., A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) ..... 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (Fort Riley, Kan.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

#### Mills County

DeYoung, W. A., Glenwood (APO 813, New York, N. Y.) ..... Capt., A.U.S.  
 Margaret, E. C., Glenwood (APO 462, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 230, New York, N. Y.) ..... Capt., A.U.S.

#### Mitchell County

Culbertson, R. A., St. Ansgar (Fort Knox, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (Camp Mackall, N. C.) ..... Major, A.U.S.  
 Owen, W. E., Osage (San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

#### Monona County

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... A.U.S.  
 Anderson, S. N., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 4759, San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 Gaukel, L. A., Onawa (Vancouver, Wash.) ..... Capt., A.U.S.  
 Harlan, M. E., Onawa (care PM, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Rosecrans, Cal.) ..... A.U.S.

Wainwright, M. T., Mapleton (APO 939, Seattle, Wash.) ..... A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

#### Monroe County

Gilliland, C. H., Albia (Quonset Point, R. I.) ..... Lt., U.S.N.R.  
 Heilmann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Capt., A.U.S.  
 Smith, R. A., Albia (New Cumberland, Pa.) ..... Capt., A.U.S.

#### Montgomery County

Bastron, H. C., Red Oak (APO 953, San Francisco, Cal.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) ..... Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

#### Muscatine County

Ady, A. E., West Liberty (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Ashalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) ..... Capt., A.U.S.  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 9212, New York, N. Y.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) ..... Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Lt. Col., A.U.S.

#### O'Brien County

Getty, E. B., Primghar (APO 117, New York, N. Y.) ..... Capt., A.U.S.  
 Hayne, W. W., Paulina (APO 638, New York, N. Y.) ..... Capt., A.U.S.  
 Moen, S. T., Hartley (APO 3492, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

#### Osceola County

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

#### Page County

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Bossingham, E. N., Clarinda (APO 923, San Francisco, Cal.) ..... Capt., A.U.S.  
 Bunch, H. Mck., Shenandoah (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 Burdick, F. D., Shenandoah (APO, New York, N. Y.) ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (APO 928, San Francisco, Cal.) ..... Major, A.U.S.  
 Little, E. B., Shenandoah ..... 1st Lt., A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) ..... 1st Lt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

#### Palo Alto County

Davey, W. P., Emmetsburg (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.

#### Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... Capt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

#### Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas) ..... Lt., U.S.N.R.  
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.

#### Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Capt., A.U.S.  
 Bates, M. T., Des Moines (Fleet PO, New York, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Riverside, Cal.) ..... Capt., A.U.S.  
 Brown, A. W., Des Moines (Camp Carson, Colo.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (Fort Bliss, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef-Offizierlager XXI B, Deutschland [Allemagne]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Vulcan, Alberta, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (Concordia, Kan.) ..... 1st Lt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (Randolph Field, Texas) ..... 1st Lt., A.U.S.



- Connell, J. R., Des Moines (St. Louis, Mo.).....Capt., A.U.S.  
 Corn, H. H., Des Moines (St. Louis, Mo.).....Capt., A.U.S.  
 Coughlan, D. W., Des Moines (Camp Swift, Tex.).....Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.).....Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.).....1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.).....Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.).....Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Fort Snelling, Minn.).....1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 628, New York, N. Y.).....Major, A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas).....Capt., A.U.S.  
 Ellis, H. G., Des Moines (Kearney, Nebr.).....Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas).....Major, A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Fracasce, John, Des Moines.....1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines  
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.).....Major, A.U.S.  
 Glomst, D. A., Des Moines (New Orleans, La.).....Capt., A.U.S.  
 Goldberg, Louie, Des Moines (Greensboro, N. C.).....Capt., A.U.S.  
 Gordon, A. M., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 758, New York, N. Y.).....1st Lt., A.U.S.  
 Gurau, H. H., Des Moines (Santa Ana, Cal.).....1st Lt., A.U.S.  
 Haines, D. J., Des Moines (APO 913, San Francisco, Cal.).....Capt., A.U.S.  
 Harris, D. D., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.).....1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 James, A. D., Des Moines (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.).....Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Los Angeles, Cal.).....Capt., A.U.S.  
 Kelley, E. J., Des Moines (Marshall, Mo.).....Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.).....Lt. Col., A.U.S.  
 Kloksiem, H. L., Des Moines.....Lt. (jg), U.S.N.R.  
 Kottke, E. E., Des Moines (Temple, Texas).....Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.).....1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Lederman, James, Des Moines.....1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.).....Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (Jackson, Miss.).....1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.).....1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Chicago, Ill.).....Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.).....1st Lt., A.U.S.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa).....Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (Ft. Sam Houston, Tex.).....Capt., A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.).....Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines.....1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.).....Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....Capt., A.U.S.  
 Morde, R. P., Des Moines (APO 4570, New York, N. Y.).....Capt., A.U.S.  
 Mumma, C. S., Des Moines (Los Angeles, Cal.).....Major, A.U.S.  
 Murphy, J. H., Des Moines (Barstow, Cal.).....Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.).....Major, A.U.S.  
 Noun, L. J., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Noun, M. H., Des Moines (APO 514, New York, N. Y.).....Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.).....1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.).....Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 9301, New York, N. Y.).....Capt., A.U.S.  
 Penn, E. C., West Des Moines (APO 4062, New York, N. Y.).....Capt., A.U.S.  
 Pfeiffer, E. P., Des Moines (Springfield, Mo.).....Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corona, Cal.).....Lt., U.S.N.R.  
 Porter, R. J., Des Moines (APO 12764, New York, N. Y.).....Capt., A.U.S.  
 Powell, L. D., Des Moines (Long Beach, Cal.).....Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Priestley, J. B., Des Moines (Camp Phillips, Kan.).....Major, A.U.S.  
 Purdy, W. O., Des Moines (Camp Howze, Texas).....Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.).....Major, A.U.S.  
 Robinson, V. C., Des Moines (Tampa, Fla.).....Capt., A.U.S.  
 Rotkow, M. J., Des Moines (Louisville, Ky.).....Capt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.  
 Shepherd, L. K., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Shifter, H. K., Des Moines (APO New York, N. Y.).....Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.).....1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (New Orleans, La.).....1st Lt., U.S.P.H.S.  
 Smead, H. H., Des Moines (APO 638, New York, N. Y.).....Capt., A.U.S.  
 Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Smith, R. T., Des Moines (APO 9543, San Francisco, Cal.).....1st Lt., A.U.S.  
 Snodgrass, R. W., Des Moines (Fort Rosecrans, Cal.).....Capt., A.U.S.  
 Snyder, G. E. Grimes (APO 709, San Francisco, Cal.).....Major, A.U.S.  
 Sohm, H. A., Des Moines (Oceanside, Cal.).....Lt. Comdr., U.S.N.R.  
 Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.  
 Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.  
 Stickler, Robert, Des Moines (Fort Benning, Ga.).....Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (APO 403, New York, N. Y.).....Capt., A.U.S.  
 Toubes, A. A., Des Moines (APO 12453, New York, N. Y.).....Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas).....Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.).....1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (APO 515, New York, N. Y.).....Capt., A.U.S.  
 Vaubel, E. K., Des Moines (Silver Spring, Md.).....Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.).....1st Lt., A.U.S.  
 Willett, W. M., Des Moines (APO 873, New York, N. Y.).....Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Zarchy, A. C., Des Moines (Camp Cook, Cal.).....Capt., A.U.S.
- Pottawattamie County**  
 †Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.  
 Cogley, J. P., Council Bluffs (APO 322, Unit I, San Francisco, Cal.).....Major, A.U.S.  
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.).....Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Olathe, Kan.).....Lt. Comdr., U.S.N.R.  
 Floersch, E. B., Council Bluffs (Bremerton, Wash.).....Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Jensen, A. L., Council Bluffs (Temple, Texas).....Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.  
 Limbert, E. M., Council Bluffs (Atlanta, Ga.).....Capt., A.U.S.  
 Maiden, S. D., Council Bluffs (Camp Hood, Texas).....Major, A.U.S.  
 Martin, L. R., Council Bluffs (APO 923, San Francisco, Cal.).....Capt., A.U.S.  
 Moskovitz, J. M., Council Bluffs (Camp Lockett, Cal.).....Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (APO 479, Minneapolis, Minn.).....Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.).....Capt., A.U.S.  
 Treynor, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (APO 552, New York, N. Y.).....1st Lt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.  
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.).....Capt., A.U.S.
- Poweshiek County**  
 Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.) Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.).....1st Lt., A.U.S.  
 Korfmacher, E. S., Grinnell (San Francisco, Cal.).....Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco, Cal.).....Capt., A.U.S.  
 Parish, J. R., Grinnell (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.
- Ringgold County**  
 Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Capt., A.U.S.
- Sac County**  
 Bassett, G. H., Sac City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 1001, New York, N. Y.).....Capt., A.U.S.  
 Evans, W. I., Sac City (APO 9212, New York, N. Y.) Capt., A.U.S.  
 Kloksiem, R. G., Odebolt (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.).....Major, A.U.S.
- Scott County**  
 Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.  
 Balzer, W. J., Davenport (APO 939, Seattle, Wash.) Capt., A.U.S.  
 Bishop, J. F., Davenport (APO 729, Seattle, Wash.).....Capt., A.U.S.



Block, L. A., Davenport (Clinton, Iowa).....Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York, N. Y.).....Capt., A.U.S.  
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.  
 Brown, D. H., Davenport (Waycross, Ga.).....Capt., A.U.S.  
 Brown, M. J., Davenport (Camp Hale, Colo.).....Major, A.U.S.  
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.  
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.).....Capt., A.U.S.  
 Coleman, Tom, Davenport (Camp Stewart, Ga.).....1st Lt., A.U.S.  
 Cummins, G. M., Jr., Davenport.....1st Lt., A.U.S.  
 Decker, C. E., Davenport (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Evans, H. J., Davenport (Ft. Bragg, N. C.).....Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.).....Capt., A.U.S.  
 Goenne, Wm., Jr., Davenport (Camp White, Ore.).....1st Lt., A.U.S.  
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.).....Major, A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.).....1st Lt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Berkeley, Texas).....Major, A.U.S.  
 Kimberly, L. W., Davenport (New Orleans, La.).....Capt., A.U.S.  
 Krakauer, Max, Davenport (Camp Breckinridge, Ky.).....Capt., A.U.S.  
 LaDage, L. H., Davenport (APO 180, Los Angeles, Cal.).....Major, A.U.S.  
 Lorfeld, G. W., Davenport (Columbus, Ohio).....Capt., A.U.S.  
 Marker, J. I., Davenport (Ft. Des Moines, Iowa).....Col., M.R.C.  
 McMeans, T. W., Davenport (APO 514, New York, N. Y.).....1st Lt., A.U.S.  
 Neufeld, R. J., Davenport (Camp Ellis, Ill.).....Capt., A.U.S.  
 Perkins, R. M., Davenport (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Sheeler, I. H., Davenport (Camp Crowder, Mo.).....Capt., A.U.S.  
 Shorey, J. R., Davenport (Denver, Colo.).....Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 514, New York, N. Y.).....1st Lt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.).....Lt. Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (APO 9788, San Francisco, Cal.).....Capt., A.U.S.  
 Weinberg, H. B., Davenport (Fort Benning, Ga.).....Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.).....Capt., A.U.S.

**Shelby County**  
 Bisgard, C. V., Harlan (Farragut, Idaho).....Lt. Comdr., U.S.N.R.  
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.).....Capt., A.U.S.  
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

**Sioux County**  
 Gleysteen, R. R., Alton (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (Fort Sam Houston, Texas).....1st Lt., A.U.S.  
 Larson, M. O., Hawarden (Camp Bowie, Texas).....Major, A.U.S.  
 Oelrich, A. M., Hull (Biloxi, Miss.).....1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Biloxi, Miss.).....1st Lt., A.U.S.

**Story County**  
 Conner, J. D., Nevada (APO 708, San Francisco, Cal.).....Capt., A.U.S.  
 Fellows, J. G., Ames (Ft. Leonard Wood, Mo.).....Capt., A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.).....Lt. U.S.N.R.  
 McFarland, J. E., Ames (Farragut, Idaho).....Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (Del Valle, Texas).....Capt., A.U.S.  
 Sperow, W. B., Nevada (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamogordo, N. Mex.).....Major, A.U.S.

**Tama County**  
 Bezman, H. S., Traer (APO 9875, New York, N. Y.).....Capt., A.U.S.  
 Boller, G. C., Traer (Camp Bowie, Texas).....Capt., A.U.S.  
 Dobias, S. G., Chelsea (APO 937, Seattle, Washington)  
 Haylik, A. J., Tama (San Diego, Cal.).....Lt. U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.)  
 Standefer, J. M., Tama (Port Hueneme, Cal.).....Lt. U.S.N.R.

**Taylor County**  
 Hardin, J. F., Bedford (APO 952, San Francisco, Cal.).....1st Lt., A.U.S.

**Union County**  
 Beatty, H. G., Creston (Camp Berkeley, Tex.).....1st Lt., A.U.S.  
 Paragas, M. R., Creston (Camp Beale, Cal.).....Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.).....Capt., A.U.S.

**Wapello County**  
 Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.).....1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO New York, N. Y.).....Major, A.U.S.  
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.).....Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.).....Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (Camp Butler, N. C.).....Capt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa.....Capt., A.U.S.  
 Prewitt, L. H., Ottumwa (March Field, Cal.).....Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas).....Lt. Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.).....Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Wolfe, W. C., Ottumwa (San Diego, Cal.).....Lt. U.S.N.R.

**Warren County**  
 Fullgrabe, E. A., Indianola (San Diego, Cal.).....Lt. U.S.N.R.  
 Hoffman, G. R., Lacona (Camp San Luis Obispo, Cal.).....Capt., A.U.S.  
 Shaw, E. E., Indianola (APO 834, New Orleans, La.).....Capt., A.U.S.

Trueblood, C. A., Indianola (APO 730, Seattle, Wash.).....Capt., A.U.S.

**Washington County**  
 Boice, C. L., Washington (Atlantic City, N. J.).....Lt. U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 Mast, T. M., Washington (Portland, Ore.).....Lt. U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.).....1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Ware, S. C., Kalona (Camp McCoy, Wis.).....Capt., A.U.S.

**Wayne County**  
 Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.).....Capt., A.U.S.

**Webster County**  
 Baker, C. J., Fort Dodge (APO New York, N. Y.).....Capt., A.U.S.  
 Burch, E. S., Dayton (APO 709, San Francisco, Cal.).....Capt., A.U.S.  
 Burleson, M. W., Fort Dodge (Monterey, Cal.).....1st Lt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa).....Major, A.U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.).....Lt. Comdr., U.S.N.R.  
 Joyner, N. M., Fort Dodge (Brooklyn Field, Ala.).....Lt. Comdr., U.S.N.R.  
 Kluever, H. C., Fort Dodge (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.  
 Larsen, H. T., Fort Dodge (Pensacola, Fla.).....Lt. U.S.N.R.  
 Shrader, J. C., Fort Dodge (APO 181, Los Angeles, Cal.).....Major, A.U.S.  
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.).....Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.).....Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.).....Capt., A.U.S.

**Winnebago County**  
 Fritchen, A. F., Decorah (Treasure Island, Cal.).....Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.).....Major, A.U.S.  
 Howard, W. H., Decorah  
 Larson, L. E., Decorah (Farragut, Idaho).....Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Calif.).....Lt. (Jg) U.S.N.R.  
 Van Besien, G. J., Decorah (APO New York, N. Y.).....1st Lt., A.U.S.

**Woodbury County**  
 Bettler, P. L., Sioux City (APO San Francisco, Cal.).....Major, A.U.S.  
 Blackstone, M. A., Sioux City (Pittsburg, Cal.).....1st Lt., A.U.S.  
 Boe, Henry, Sioux City (Salina, Kan.).....Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Cmeyle, P. M., Sioux City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.).....Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa).....1st Lt., A.U.S.  
 Down, H. I., Sioux City (Camp Breckenridge, Ky.).....Lt. Col., A.U.S.  
 Elson, V. J., Danbury (APO 9875, New York, N. Y.).....Capt., A.U.S.  
 Frank, L. J., Sioux City (Mare Island, Cal.).....Lt. Comdr., U.S.N.R.  
 Graham, J. W., Sioux City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.).....Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Salt Lake City, Utah).....1st Lt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.).....Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.).....Capt., A.U.S.  
 Kaplan, David, Sioux City (APO 759, New York, N. Y.).....Capt., A.U.S.  
 Knott, P. D., Sioux City (Carlisle Barracks, Pa.).....Capt., A.U.S.  
 Knott, R. C., Sioux City (Atlanta, Ga.).....Capt., A.U.S.  
 Kristgen, W. M., Sioux City (Springfield, Mo.).....Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (Santa Fe, N. Mex.).....Major, A.U.S.  
 Martin, R. F., Sioux City (Gallatin, Tenn.).....1st Lt., A.U.S.  
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.).....1st Lt., A.U.S.  
 McCuiston, H. M., Sioux City (APO New York, N. Y.).....Capt., A.U.S.  
 Mugan, R. C., Sioux City (Gowen Field, Idaho).....1st Lt., A.U.S.  
 Osincup, P. W., Sioux City (APO 9101, New York, N. Y.).....Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.).....Capt., A.U.S.  
 Reader, J. E., Jr., Sioux City (Modesto, Cal.).....Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.).....Capt., A.U.S.  
 Schwartz, J. W., Sioux City (Ft. Leavenworth, Kan.).....Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Ephrata, Wash.).....Capt., A.U.S.

**Worth County**  
 Westly, G. S., Manly (APO 4580, San Francisco, Cal.).....Major, A.U.S.

**Wright County**  
 Aagesen, C. A., Dows (Greenville, Pa.).....Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.).....Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Phoenix, Ariz.).....Lt. U.S.N.R.  
 Gorrell, R. L., Clarion (Buffalo, N. Y.).....Lt. U.S.N.R.  
 Leinbach, S. P., Belmont (Farragut Air Base, Idaho)  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.).....Capt., A.U.S.

(\*) Reported missing in action

(†) Reported killed in action.

(‡) Reported prisoner of war.



# WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

*President*—MRS. W. S. REILEY, Red Oak

*President-Elect*—MRS. J. C. DECKER, Sioux City

*Secretary*—MRS. A. G. FELTER, Van Meter

*Treasurer*—MRS. A. E. MERKEL, Des Moines

## THE HOME NURSING SERVICE IN POLK COUNTY

All over the United States today, women in cities, in villages, and from farms realize the value of the Red Cross Home Nursing Service as a major defense for civilian health and are enrolling in its classes. This service prepares them to give more intelligent care to their families during illness with a minimum of professional supervision and helps to relieve the strain on doctors and nurses caused by wartime shortages.

The State Department of Health has cooperated with the Red Cross in promoting the Home Nursing Service here in Iowa. County nurses and other nurses, many of them busy housewives, are serving as volunteer instructors. Iowa's record has been outstanding; many of the chapters have more than filled their quota set by the National Red Cross this past year.

In Polk County 2,400 persons have completed the course since Pearl Harbor. The classes have been conducted, as elsewhere throughout the country, in neighborhood groups of twenty which met in church basements, vacant stores, and schoolhouses. Because equipment was necessarily limited in these places, the course depended more upon information than practical skill.

On the first of February the Polk County Red Cross Home Nursing Committee, of which Mrs. Arthur Keyes is chairman, opened its Home Nursing Teaching Center on the second floor of the Garver Building at 707 Locust Street, Des Moines, thus blazing a new trail in home nursing—the first of its kind in Red Cross home nursing instruction in the United States.

Eleven beds obtained from reserves at local hospitals are grouped around the room. Bed linen and other sickroom equipment furnished by the Red Cross or improvised by the committee and instructors fill the cupboard shelves and make the course a thoroughly practical one.

This Teaching Center is part of a complete plan for a home nursing course formulated and presented to the National Red Cross office for approval by Mrs. Keyes and two of her committee members, Miss Gertrude Cromwell, Superintendent of Health Education and School Nursing in the Des Moines Public

Schools, and Miss Adah Hershey, Director of the Des Moines Public Health Nursing Association.

The Home Nursing Committee has fifteen members and each has an active part in the work. Two of the members, Mrs. James E. Dyson and Mrs. Hugh B. Woods, are home nursing instructors. Three others, Mrs. H. C. Burnstedt, Mrs. R. M. Williamson, and Mrs. C. G. Yarn, are in charge of the Center and take their turn in assisting the instructors during class periods.

At present there are eight classes at the Center and two hundred women on the waiting list. One of the classes is a group of men, members of a Red Cross Ambulance Corps, and includes teachers, a Red Cross director, a purchaser for the City Library, a dentist, a Federal Department of Agriculture inspector, a meter tester, an Ordnance Plant inspector, and a Telephone Company official.

Classes are still being planned for outlying districts. One worthy of mention is for teen-age Mexican girls in West Des Moines. This is an extra-curricular activity, although membership in the class is determined by scholastic standing. As a result of the rural classes, Polk County has nine Health Councils, seven of which include what is called a community loan closet. These groups have proved a real asset in emergencies and in caring for the underprivileged individuals in their community.

Home nursing is an opportunity for service. It is a means of insuring safe and more healthful homes and more satisfactory human relationships. Every instructor considers it a real privilege to have a part in this project.

The following Polk County instructors are doctors' wives: Mrs. Richard S. Ahrens, Mrs. Wilbert W. Bond, Mrs. Thomas A. Burcham, Mrs. Russell C. Doolittle, Mrs. James E. Dyson, Mrs. John M. Griffin, Mrs. Cecil C. Jones, Mrs. Burlin E. Keen, Mrs. Harry E. Ransom, and Mrs. Hugh B. Woods.

Mrs. Russell C. Doolittle, Des Moines

"Medicine is the profession which labors incessantly to destroy the reason for its own existence."—JAMES BRYCE.

### FORTIFYING OUR FOODS

Food is not a panacea for all ills. The Lord said, "Man shall not live by bread alone." Each of us is a composite trinity of Body, Mind, and Spirit, and each of these units requires separate attention to insure normal existence. Recent psychologic findings prove that when work, play, love, and religion are fairly well equalized in our lives, we are likely to be normal in most of our tendencies.

Certain diseases such as rickets, scurvy, pellagra and others are directly traceable to diet; however, we would scarcely expect to feed a moron the perfect menu in hopes of making a normal individual of him; neither would we expect to dull intense grief or any other spiritual upheaval with food alone. On the other hand, proper diet makes for general good health, and general good health makes for a healthy mental and spiritual outlook. Robert Louis Stevenson, who was a lifelong sufferer from tuberculosis, said: "The truest health is to be able to get along without it." And certainly he did a beautiful job of "getting along without it" as did Beethoven, Keats, and countless others among the great. Great souls offer great possibilities, but we are tempted to wonder how much further they might have gone with the added attribute of good health.

Someone has said that "None of us is useless. The least the worst of us can do is to serve as horrible examples." And there are literally many "horrible examples" on foot who "dig their graves with their teeth." It is a good plan to stop eating before one is full and to eat the things which we should eat first, and those we like if we have room.

Financial security does not necessarily indicate an adequate or a deficient diet. There is available so much readable material on foods, their care and preparation that most of us have no excuse for being uninformed. Proteins, carbohydrates, and fats are essential to a balanced diet. In a general way, the following foods make up a balanced diet and quantities vary with age and the amount of energy expended: Milk, citrus fruit or their juices or tomato juice, a whole grain cereal, bread and butter, one egg, a serving of lean meat, potatoes and two vegetables, one of which should be green. The above items are daily necessities.

The following hints on food preparation are worth remembering:

1. Use no more heat than necessary to make food palatable. Foods slightly underdone are better for you than those overdone.

2. When possible, steam rather than boil foods. Use as little water as possible and save the water which is left over for soups and gravies. Keep the liquids from canned foods to use in the same way.

3. Use as little heat as possible when cooking meats, for rare meats are more nourishing. Never fry foods if you can avoid it. Pork, however, should be thoroughly cooked.

4. Avoid peeling fruits or vegetables and allowing them to stand before cooking. It is best to cook all vegetables whole with the skins on. Do not use

soda when cooking green vegetables because it increases the harmful effect of the air on some of the vitamins.

5. Do not chop fresh fruits and vegetables and allow them to stand before serving.

6. Frozen foods should be cooked while still frozen. If used raw, they should be eaten immediately after thawing.

Dr. W. W. Bauer, author of *Eat What You Want*, and familiar to many of us from his association with *Hygeia*, stipulates that the American public can be "vitamin foolish." Vitamins as a supplementary medical measure should be taken only under the advice of a physician. Very few people get a complete daily quota of vitamins, but at the end of a week, experiment has shown that most of us acquire the proper amount.

Our complex civilization, speed, tension, and other factors are partially responsible for ulcers, eye-strain, and other maladies which have some relation to diet. When we speak of "fortifying our foods," we should go much further and "fortify our intelligence." Arnold Bennet in his *Autobiography* made an unforgettable statement when he said, "There are many things which we realize intellectually, but refuse to admit emotionally." If we can make it a point to strive, and mind you I say only to strive for "sound minds in sound bodies," we shall have come a long, long way.

Mrs. K. M. Chapler, Dexter

#### HEALTH PRAYER

Give me good digestion, Lord,  
And also something to digest;  
Give me a healthy body, Lord,  
And sense to keep it at its best.

Give me a healthy mind, good Lord,  
To keep the good and pure in sight,  
Which seeing sin is not appalled  
But finds a way to set it right.

Give me a mind that is not bored,  
That does not whimper, whine or sigh.  
Don't let me worry overmuch  
About the fussy thing called I.

Give me a sense of humor, Lord;  
Give me the grace to see a joke.  
To get some happiness from life  
And pass it on to other folk.

(Anonymous verses found inscribed on a wall in Chester Cathedral, England.)

#### SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:05 p. m.

WSUI—Thursdays at 9:00 a. m.

April 5- 6	Cancer	Harold W. Morgan, M.D.
April 12-13	Measles	Paul G. Ingham, M.D.
April 19-20	Malta Fever	Carl F. Jordan, M.D.
April 26-27	Indigestion	Melvin T. Johnson, M.D.



## SOCIETY PROCEEDINGS

### Black Hawk County

The Black Hawk County Medical Society met in conjunction with the Black Hawk County Tuberculosis Association Tuesday, March 21, at 6:15 p. m. at Hotel President in Waterloo. Wives of the members were also present for the occasion. William M. Spear, M.D., of the State Sanatorium at Oakdale, and Edward L. Besser, M.D., of the State University College of Medicine at Iowa City, were guest speakers.

S. A. Barrett, M.D., Secretary

### Cerro Gordo County

The regular meeting of the Cerro Gordo County Medical Society was held Tuesday evening, March 14, at Hotel Hanford in Mason City. The scientific program consisted of a paper on Blood Diseases of Children by Guido J. Sartor, M.D., of Mason City, and a paper on Complications of Pregnancy by Harold J. Roddy, M.D., also of Mason City.

### Decatur County

At a meeting of the Decatur County Medical Society, which was held at the Decatur County Hospital Friday Evening, February 25, Dr. Henry M. Hills of Lamoni was elected president of the Society for 1944. Dr. John W. Wailes of Davis City was named vice president, and Dr. Kenneth R. Brown of Lamoni, secretary and treasurer.

### Hardin County

The Hardin County Medical Society met in Iowa Falls Friday, March 17, at 6:30 p. m. at the Princess Cafe. The guest speaker of the evening was Raymond S. Grossman, M.D., of Marshalltown, who presented an interesting talk, illustrated with films, on The Modern Methods of Treatment of Pneumonia.

### Jackson County

Members of the Jackson County Medical Society met in Maquoketa Tuesday evening, February 22. Officers elected to serve the Society during 1944 include Dr. Bernard B. Dwyer of Preston, president, and Dr. Frederick J. Swift of Maquoketa, secretary and treasurer.

### Johnson County

The Johnson County Medical Society met in Iowa City Wednesday, March 1, at 6:00 p. m. at Hotel Jefferson. Following dinner and the usual business meeting, a scientific program was presented on Penicillin Therapy of Infections. Albert P. McKee, M.D., of the Department of Bacteriology, spoke on Pathology; Karl S. Harris, M.D., of the Department of Surgery discussed Surgical Infections Treated by Peni-

cillin; and J. Howard Laubscher, M.D., talked on Pediatric Infections. The discussion was opened by Horace M. Korn, M.D., and Elmer M. DeGowin, M.D., of the Department of Medicine and William C. Huffman, M.D., of the Department of Otolaryngology.

R. H. Flocks, M.D., Secretary

### Page County

The annual meeting of the Page County Medical Society was held in Shenandoah at the Delmonico Hotel Thursday evening, March 2. The guest speaker of the evening was W. Howard Morrison, M.D., of Omaha who spoke on Eye Diseases. The following officers were elected to serve the Society during the year: Dr. Norman D. Render of Clarinda, president; Dr. Frank H. Clark of Clarinda, vice president, and Dr. J. Frank Aldrich of Shenandoah, secretary and treasurer.

### Polk County

At a meeting of the Polk County Medical Society held in Des Moines at the Des Moines Club Wednesday evening, February 23, Willis E. Brown, M.D., Assistant Professor of Obstetrics and Gynecology at the State University of Iowa College of Medicine, spoke on The Management of the Menopause. On Wednesday evening, March 15, Percival Bailey, M.D., Professor of Neurology and Neurological Surgery at the University of Illinois College of Medicine, spoke on Vascular Anomalies and Malformations of the Brain. On Wednesday evening, March 29, at the Veterans Administration Facility in Des Moines, Charles H. Slocumb, M.D., of the Mayo Clinic spoke on the Diagnosis and Treatment of Arthritis and Allied Conditions.

### Scott County

The regular monthly meeting of the Scott County Medical Society was held Tuesday, March 7, at 6:00 p. m. at the Lend-A-Hand Club in Davenport. The guest speaker of the evening was Willis M. Fowler, M.D., of the Department of Internal Medicine at the University of Iowa College of Medicine, who spoke on Medical Experiences on a Recent South American Trip. This included a discussion of tropical diseases which he studied in Guatemala under the auspices of the Association of American Medical Colleges.

L. J. Miltner, M.D., Secretary

### Taylor County

The Taylor County Medical Society held its regular monthly meeting at Hotel Lenox in Lenox Monday evening, February 21. The discussion period consisted of the following papers: Malta Fever by Roe B. Reed, M.D., of Clearfield; Hematemesis by

George W. Rimel, M.D., of Bedford; Differential Diagnosis and Treatment of Oak and Ivy Poisoning by James H. Gasson, M.D., of Bedford; Angina Pectoris by William H. Cash, M.D., of Lenox; Coronary Occlusion and Case Report by Charles E. Buckley, M.D., of Blockton. A motion picture on Complete Laceration of the Perineum by Louis E. Phaneuf, M.D., of Boston, Massachusetts, was also presented.

C. E. Buckley, M.D., President

#### Wapello County

The Wapello County Medical Society met Tuesday, March 7, at 8:00 p. m. at the St. Joseph Hospital in Ottumwa. Vernon S. Downs, M.D., of Ottumwa was the program leader and presented a paper on Electrocardiographic Change in Myocardiac Insufficiency.

#### Upper Des Moines Medical Society

The annual winter meeting of the Upper Des Moines Medical Society was held at the Kermore Hotel in Emmetsburg Thursday, March 9, at 6:30 p. m. The scientific program was comprised of a talk on Calculus Disease of the Kidneys by Walter R. Fieseler, M.D., of Fort Dodge; a paper on Acute Diseases of the Gallbladder by George M. Crabb, M.D., of Mason City; and a discussion of The Wagner-Murray Bill by Albert A. Schultz, M.D., of Fort Dodge. Officers elected to serve the Society during the year include: Dr. Thomas L. Ward of Spirit Lake, president; Dr. Raymond J. Brink of Ayrshire, vice president, and Dr. Matthew T. Morton of Estherville, secretary and treasurer.

The wives of the doctors were present for the dinner, following which they adjourned to the home of Mrs. Paul O. Nelson. A short business meeting was held and officers were elected to serve the Auxiliary during the year. Dr. Mary Roberts of Spirit Lake was elected president; Mrs. George H. Keeney of Mallard, vice president, and Mrs. Elbert E. Munger, Jr., of Spencer, secretary and treasurer.

#### PERSONAL MENTION

Dr. Addison L. Judd of Kanawha has announced his intentions to retire from the active practice of medicine after serving that community continuously for forty-two years. Dr. Judd was forced to retire at this time because of ill health.

Dr. Floyd E. Bates, who has owned and operated the Bates Hospital in Osceola for the past five years, has sold the institution and will open an office for the general practice of medicine in Indianola on April 10. Dr. Herbert E. Stroy of Osceola purchased the hospital.

Dr. J. A. William Johnson has located in Marshalltown with offices in the Tremont Building. Prior to March 16 when he moved to Marshalltown, Dr. Johnson practiced in Newton. He had been located there for the past eighteen years.

Dr. Ola A. Kabrick, who has been located in Grandview for the past twenty years, is moving to Jackson, Minnesota, where he will be connected with Halloran Hospital.

#### DEATH NOTICES

Carpenter, Oscar Orville, of Sully, aged seventy-six, died March 21 following an illness of three years. He was graduated in 1894 from the Drake University College of Medicine, and at the time of his death had long been a member of the Jasper County and Iowa State Medical Societies.

Elliott, William J., of Dawson, aged eighty, died March 22 of injuries suffered in a recent fall. He had been in failing health for some time. He was graduated in 1898 from Keokuk Medical College, and at the time of his death had long been a member of the Dallas-Guthrie and Iowa State Medical Societies.

George, Joseph, of Dows, aged seventy-two, died February 28 after an illness of more than two years. He was graduated in 1895 from Rush Medical College, and at the time of his death had long been a member of the Wright County and Iowa State Medical Societies.

Ivins, Harry Morgan, of Santa Cruz, California, formerly of Cedar Rapids, aged sixty-five, died March 21 following an illness of several years. He was graduated in 1908 from the State University of Iowa College of Medicine, and at the time of his death was a life member of the Linn County and Iowa State Medical Societies.

Mason, James Howard, of Plainfield, aged seventy, died February 23 of a heart attack. He was graduated in 1904 from Drake University College of Medicine, and at the time of his death was a member of the Bremer County and Iowa State Medical Societies.

Pershing, Frank Orren, of Keota, aged seventy-six, died March 18 after an illness of more than three years. He was graduated in 1893 from the College of Physicians and Surgeons of Keokuk, and at the time of his death had long been a member of the Keokuk County and Iowa State Medical Societies.

Rambo, Eli Francisco, of Webster City, aged fifty-three, died suddenly March 13 of a cerebral hemorrhage. He was graduated in 1917 from Rush Medical College, and at the time of his death was a member of the Hamilton County and Iowa State Medical Societies.

Weaver, Adam, of Cumberland, aged seventy-seven, died February 26 of a heart attack. He had been in ill health for several months. He was graduated in 1892 from the St. Louis College of Physicians and Surgeons, and at the time of his death was a member of the Cass County and Iowa State Medical Societies.



# HISTORY OF MEDICINE IN IOWA

*Edited by the Historical Committee*

DR. WALTER L. BIERRING, Des Moines, Chairman

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## STATE UNIVERSITY OF IOWA COLLEGE OF MEDICINE

### The First Dean and First Medical Faculty

WALTER L. BIERRING, M.D., Des Moines

This account will deal largely with personal recollections of the interesting personalities which comprised the first medical faculty and particularly the first dean, Dr. W. F. Peck, who guided the destinies of the medical school through the first twenty-two years.

Dr. Washington F. Peck located in Davenport in 1864 when he was twenty-three years of age, having graduated in 1862 from Bellevue Hospital Medical College and served eighteen months as house surgeon in Bellevue Hospital, New York, and one year as surgeon at the Lincoln General Hospital in Washington, D. C. Soon after coming to Davenport he was elected secretary of the Scott County Medical Society, serving for two years. The careful records in his handwriting add to the historical value of the old minutes of that Society. He seemed born for leadership and impressed everyone with his handsome appearance, striking personality, and those distinguishing characteristics of indomitable courage and energy, self reliance, and persistent determination to accomplish his purpose.

It is reported that the idea of establishing a State University Medical School at Iowa City was first suggested to Dr. Peck by his friend, U. S. Circuit Judge John F. Dillon, also a graduate in medicine and charter member of the Iowa State Medical Society, organized in Burlington in 1850,

who early gave up medical practice to enter the legal profession.

On this period his colleague, Dr. W. D. Middleton, wrote as follows: "All who knew Dr. Peck, his rare talents in his profession, his wonderful personal magnetism, and the perfect 'abandon' with which he throws his efforts in any cause in

which he may be enlisted, were not surprised to see the facility with which he gathered about him a strong coterie of warm personal friends with great influence in the affairs of the state who joined heart and soul with his work; among these was the Honorable John P. Irish, a leading Democrat, member of the Board of Trustees of the University, prominent editor in Iowa City and ardent friend of the cause of education, who threw all the weight of tongue and pen, both wonderfully eloquent, into the effort."

On June 18, 1868, the Board of Trustees adopted a resolution: "That there be and is hereby established a medical department of the University." The following year was devoted to examining credentials and recommendations for positions on

the prospective faculty, until at a meeting held in Iowa City June 26, 1869, the Trustees appropriated \$3,000.00 to prepare South Hall for the medical department, and provided that an election of gentlemen to fill the medical chairs be held and that the time of opening the new department be left



WASHINGTON F. PECK, M.D.  
1841-1891  
Professor of Surgery and Dean Medical  
Faculty 1869-1891

to their option, but not to be delayed beyond the fall of 1870.

This action was adopted by a vote of eight to one; singularly enough the only dissenting vote was that of the one physician on the Board, Dr. H. C. Bulis. While official approval was readily obtained, there were many obstacles to be overcome in organizing a new medical school. It still had to have legislative endorsement. Rival medical schools were naturally opposed to it, and particularly the alumni of the medical college located at Keokuk, which was organized in 1850 and for seventeen years listed in its annual announcements, "The Medical Department of the State University," although the constitution expressly provided that the "University and all its departments should be located at Iowa City."

At this juncture a severe blow was aimed at

first meeting of the medical faculty in 1869 Dr. Peck was elected dean, then twenty-eight years of age, in recognition of his valuable efforts in establishing the school; a merited honor which was extended to him annually for twenty-two years until his death in December, 1891.

The first regular course began on October 24, 1870, and ended on the first of March, 1871. During the first two years the teachers served without remuneration; after that an annual appropriation permitted paying a moderate salary to professors and special lecturers.

Dr. Peck as dean ruled with a firm hand, although students and colleagues always remembered him with affection and pride. During his administration, a new and well equipped medical building was completed in 1882; courses were extended and the school attained a high rank among other

CAT.



MEDICAL DEPARTMENT, STATE UNIVERSITY OF IOWA

First Medical Faculty 1869-1870

Standing, left to right: G. B. Hinrichs, M.D., 1836-1908; J. C. Shrader, M.D., 1830-1906; W. S. Robertson, M.D., 1831-1887; W. D. Middleton, M.D., 1844-1902; E. F. Clapp, M.D., 1843-1908. Seated: P. J. Farnsworth, M.D., 1832-1909; W. F. Peck, M.D., 1841-1891; John F. Dillon, M.D., 1830-1905.

the embryo school by the Iowa State Medical Society, holding its eighteenth annual meeting in Des Moines, the fourteenth General Assembly of the State being in session at the same time.

The resolutions adopted and submitted to the Legislature are too extended to be reprinted here, but in substance the Society considered the organization of a medical department at Iowa City as "totally uncalled for and a useless expenditure of public money." This same Society six years later elected Dr. Peck as its president. He was then thirty-six years of age and was the youngest president in its history. A bill was introduced during this legislative session to abolish the department, but it was lost. The Board of Trustees continued its active support and the following March, 1870, the first announcement of the Medical Department of the Iowa State University was issued. At the

institutions of its kind. He was elected the first professor of surgery and contributed distinctly to the surgical teaching of his day. He spoke entirely without notes, in a modulated, pleasing, yet penetrating voice; one listened with rapt attention, and as his eyes passed over his audience he seemed to speak directly to each individual hearer, and woe to the student who lapsed into somnolence or showed signs of inattention. He began his lecture exactly five minutes after the hour and ended the same time before the close. He was equally stimulating as a clinical teacher; he was a bold operator, who never quite accepted the Listerian principles of antiseptic surgery, relying more on strict cleanliness and rapidity of operative procedure. The large number of ovariectomies, about one hundred, was a distinguishing feature of his surgical work. As chief surgeon of the Chicago, Rock Island and



Pacific Railway, his leadership was recognized in that special field of surgical practice. He was one of the charter members of the American Surgical Association and an active member of the American Medical Association.

Dr. Peck was a good judge of men, which was shown in the selection of an able group of teachers for the first faculty. He evidently believed in young men, because the oldest faculty member was thirty-nine years, and the youngest twenty-five years of age.

The only member with any previous teaching experience was Dr. Gustavus B. Hinrichs, professor of chemistry and toxicology, who was also professor of the physical sciences in the University. A graduate in chemistry and physics from the University of Copenhagen, he spoke and wrote fluently in the Danish, German, French, and English languages. His publications were numerous and included investigations in the fields of organic chemistry, physics, astronomy, electromagnetics and meteorology. He organized the state meteorological service, better known as the "Iowa weather service." He was granted the degree of M.D. from the Missouri Medical College of St. Louis in 1872.

Dr. Hinrichs was a true scientist and had a definite stimulating influence on the young student of medicine. He was especially interested in the physical sciences, and in later years this led to a clash with those faculty members who were more biologically minded.

The first professor of anatomy selected was Dr. J. H. Boucher, who resigned about the middle of the session because of difficulties over anatomic material, and Dr. Elmer F. Clapp was named as his successor. He taught a method of applied anatomy which was very impressive. A Chesterfieldian in dress and manner, he had a personal charm which added greatly to his general popularity.

Dr. Farnsworth, the first professor of materia medica, was regarded among his associates as the outstanding classical scholar. He was a graduate of the academic and medical departments of the University of Vermont, after which he continued his medical studies at the College of Physicians and Surgeons of Columbia University, graduating there in 1860. His lecture on opium was a classic, but often exerted its sedative action indirectly upon his listeners. He soon became the faculty student adviser and was affectionately known as "Pappy Farnsworth" throughout his twenty-two years of service.

The youngest member of the first faculty was Dr. William Drummond Middleton, professor of physiology and microscopic anatomy, who began his teaching career within a year after graduating

from Bellevue Hospital Medical College. Born and educated in the Scottish Highlands, he too was noted for his scholarship in Latin and Greek and his knowledge of Shakespeare. He was destined to have the longest service in the University Medical School. He was a teacher in three subjects, physiology, medicine and surgery, being equally at home and a master in each. No words can do justice to the charm of his personality, his scholarly address, and nobility of character. His keen sense of humor, ready wit, and genial manner were a delight to student and colleague.

Dr. William S. Robertson, the first professor of the theory and practice of clinical medicine, was the son of an Iowa pioneer physician and was graduated in 1856 from the Jefferson Medical College, Philadelphia. He was recognized as a good diagnostician and clinical teacher. His didactic lectures were carefully prepared and classical in their wording and construction, yet he read them very rapidly, which made them difficult to follow; often when he laid the notes aside, his talk was much more interesting.

Dr. John C. Shrader, professor of obstetrics and diseases of children, was a picturesque personality. He often came into the lecture room wearing high military boots and a rosebud in the lapel of his Prince Albert coat. He was, however, an interesting lecturer, an able operator, and a good instructor in obstetrics.

Dr. John F. Dillon as professor of medical jurisprudence, although a graduate in medicine, added distinction to the medical school because of his eminence in the legal profession. When he became a member of the Faculty in 1869 he was a Judge of the United States Circuit Court. Later he was elected to the Supreme Court of Iowa, and left the state in 1879 to accept the professorship in law at Columbia University, New York City.

Aside from enthusiastic devotion to their duties as medical teachers, the several members were active in public affairs. Dr. Robertson was largely responsible for the organization of the State Board of Health in 1880 and acted as its first president. Dr. Shrader served two terms as a member of the State Senate, and also became a member of the Iowa State Board of Health, serving as president.

Aside from Dr. Peck, three other members, Drs. Robertson, Shrader, and Middleton, were elected president of the Iowa State Medical Society. Dr. Shrader served as dean of the faculty from 1891 to 1896, and Dr. Middleton from 1896 to his death in 1902.

Such, in brief outline, were the types of men who founded our University Medical School. Of them it may be said, "They builded better than they knew," which ensures for each who had a part in it an enduring monument.

# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**ELEMENTS OF MEDICAL MYCOLOGY**—By Jacob Hyams Swartz, M.D., assistant professor of dermatology, Harvard Medical School and Postgraduate School; dermatologist, Massachusetts General Hospital. Introduction by Fred D. Weidman, M.D., professor of dermatological research, University of Pennsylvania. Grune & Stratton, Inc., New York, 1943.

**FRACTURES AND DISLOCATIONS for Practitioners**—By Edwin O. Geckeler, M.D., fellow of the American College of Surgeons, fellow of the American Academy of Orthopaedic Surgeons, diplomate of the American Board of Orthopaedic Surgery. Third edition. The Williams and Wilkins Company, Baltimore, 1943. Price, \$4.50.

**THE 1943 YEAR BOOK OF GENERAL SURGERY**—Edited by Everts A. Graham, M.D., professor of surgery, Washington University School of Medicine; surgeon-in-chief of the Barnes Hospital and of the Children's Hospital, St. Louis. The Year Book Publishers, Inc., Chicago, 1943. Price, \$3.00.

**THE ARTHROPATHIES—A Handbook of Roentgen Diagnosis**—By Alfred A. de Lorimier, M.D., Colonel, Medical Corps, United States Army, Commandant, The Army School of Roentgenology, Memphis, Tennessee. Formerly director, Department of Roentgenology, Army Medical School, Washington, D. C. The Year Book Publishers, Inc., Chicago, 1943. Price, \$5.50.

**MANUAL OF THE DISEASES OF THE EYE**—By Charles H. May, M.D., consulting ophthalmologist to Bellevue, Mt. Sinai, and French Hospitals, New York; with the assistance of Charles A. Perera, M.D., associate in ophthalmology, College of Physicians and Surgeons, Medical Department of Columbia University, New York. Eighteenth edition, revised. William Wood and Company, Baltimore, 1943. Price, \$4.00.

**RECONSTRUCTIVE SURGERY OF THE EYELIDS**—By Wendell L. Hughes, M.D., Hempstead, New York. The C. V. Mosby Company, St. Louis, 1943. Price, \$4.00.

**THE 1943 YEAR BOOK OF GENERAL MEDICINE**—Edited by George F. Dick, M.D.; J. Burns Amberson, Jr., M.D.; George R. Minot, M.D.; William B. Castle, M.D.; William D. Stroud, M.D.; George B. Eusterman, M.D. The Year Book Publishers, Chicago, 1943. Price, \$3.00.

**HEALTH AND HYGIENE—A Comprehensive Study of Disease Prevention and Health Promotion**—By Lloyd Ackerman, Western Reserve University. The Jacques Cattell Press, Lancaster, Pennsylvania, 1943. Price, \$5.00.

**THE PRINCIPLES AND PRACTICE OF OBSTETRICS**—By Joseph B. DeLee, M.D., formerly professor of obstetrics and gynecology, emeritus, University of Chicago, consultant in obstetrics, Chicago Lying-in Hospital and Dispensary, consultant in obstetrics, Chicago Maternity Center; and J. P. Greenhill, M.D., attending obstetrician and gynecologist, Michael Reese Hospital, obstetrician and gynecologist, associate staff, Chicago Lying-in Hospital, attending gynecologist, Cook County Hospital, professor of gynecology, Cook County Graduate School of Medicine. Eighth edition, entirely reset. W. B. Saunders Company, Philadelphia, 1943. Price, \$10.00.

**METHODS OF TREATMENT**—By Logan Clendening, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals; and Edward H. Hashinger, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals, attending physician, St. Luke's Hospital, Kansas City, Missouri. Eighth Edition. C. V. Mosby Company, St. Louis, 1943. Price, \$10.00.

## BOOK REVIEWS

### OFFICE TREATMENT OF THE NOSE, THROAT AND EAR

By Abraham R. Hollender, M.D., associate professor of laryngology, rhinology and otology, University of Illinois College of Medicine; otolaryngologist, Research and Educational Hospitals, Chicago, Illinois. The Year Book Publishers, Inc., Chicago, 1943. Price, \$5.00.

Most of the hospital training is concentrated on the diagnosis and treatment of major otolaryngologic problems, or at least those severe enough to require hospitalization. Likewise, most texts covering this field are devoted chiefly to these major problems. Office and home treatment is usually not discussed in detail. The author's work fills an important gap here and fills it very adequately.

All phases of office treatment, including drugs, physical therapy, office surgery, and roentgenology, are covered and brought up to date. He tells just what to do and how to do it. When more than one method is applicable, he gives all of them and indicates his choice. His recommended methods coincide with the present-day tendency toward conservatism; that is, reestablishment of structural function without destructive effects.

This work is particularly appropriate now that we are seeing a diminution in major otolaryngologic surgery and a corresponding growth in our office practice. S. A. B.

### ESSENTIALS OF SYPHILOLOGY

By Rudolph H. Kampmeier, M.D., associate professor of medicine, Vanderbilt University School of Medicine; in charge of the Syphilis Clinic and visiting physician to Vanderbilt University Hospital; with chapters by Alvin E. Keller, M.D., and J. Cyril Peterson, M.D. The J. B. Lippincott Company, Philadelphia, 1943. Price, \$5.00.

Many volumes have been written on the subject of syphilis. Some have been so brief and have assumed too much knowledge on the part of the reader so that they have been almost useless. Others have been so voluminous and detailed that, while they contained everything to be known about the subject, they have forced the reader to thumb through many pages and cross references with the result that the searcher for answers to his problems has become discouraged. This book seems to be the answer to the busy general practitioner in that it has all of the answers where they are easily found and yet includes enough scientific background so that the reader can bring himself up to date and think his question through.

The book is exceedingly well organized, having throughout a logical plan which takes the reader through the various diagnostic items and the several forms of syphilis to the general value of the control of syphilis so far as it affects the individual, the physician, and the community as a whole.



Probably the outstanding feature of the book is the chapter entitled "The Serologic Diagnosis of Syphilis." This chapter is one of the clearest and most understandable of all I have read in regard to the extremely confusing serologic results often encountered in examining patients for syphilis.

If you need (and who doesn't) a reference on syphilis where you can get answers to your problems quickly and concisely, this is your book. Dr. Kampmeier has truly lived up to the title he has given the book; it really is the "Essentials of Syphilology."

R. M. S.

#### THE NATURE AND TREATMENT OF MENTAL DISORDERS

By Dom Thomas Verner Moore, M.D., professor of psychology and psychiatry, Catholic University of America. Foreword by Edward A. Strecker, M.D., professor of psychiatry, Graduate and Undergraduate Schools of Medicine, University of Pennsylvania; consultant and chief of service, Institute of the Pennsylvania Hospital, Philadelphia. Grune and Stratton, New York, 1943.

"Knowledge is of two kinds," says Samuel Johnson in this book, "we know a subject ourselves, or we know where we can find information upon it." Dom Thomas Moore cites case reports from a wealth of practical experience and common sense in the office practice of psychiatry, but in the discussion of psychiatric theory he shows such inaccuracy and confusion which seems to come from looking too much at the "backs of books." Your reviewer cannot feel such writing an important contribution. It is neither a safe guide for the elementary student, nor deep and satisfying reading for the experienced psychiatrist. A foreword by Dr. E. A. Strecker is prominently advertised on the title page, but one misses his influence elsewhere in the book.

N. D. R.

#### THE MIND OF THE INJURED MAN

By Joseph L. Fetterman, M.D., assistant clinical professor of nervous diseases, Western Reserve University School of Medicine, Cleveland, Ohio. Industrial Medicine Book Company, Chicago, 1943. Price, \$4.00.

This book deals with a difficult subject in an educational manner, and the author's method of presentation is most interesting. The introductory chapter presents a brief resume of the subject matter contained in the entire book. Throughout the text, the author presents case records of patients as seen in his private practice.

The early chapters consider the functional anatomy of the central nervous system, the functions of the brain with some psychologic changes, early and late anatomic changes, and associated symptoms in head injury. An entire chapter on diagnosis is presented in great detail.

These chapters form a constructive base for the following chapters on psychosis, paresis, traumatic lesions of the spine and spinal cord, as well as lesions of the acranial and peripheral nerves. Several chapters are devoted to miscellaneous conditions following trauma of the central nervous system. The last chapters of the book deal with treatment and medicolegal considerations.

This book would be a valuable addition to the library of the general practitioner as well as the specialist, and could be used either as a text or reference book.

W. C. G.

#### URINE AND URINALYSIS

By Louis Gershenfield, B.Sc., P.D., Ph.M., D.Sc., professor of bacteriology and hygiene and director of the bacteriological and clinical Chemistry Laboratories at the Philadelphia College of Pharmacy and Science. Second edition, thoroughly revised. Lea and Febiger, Philadelphia, 1943. Price, \$3.25.

This monograph is a second edition devoted to all the clinical phases in the study of the various urinalyses. The book is remarkably complete, well written, and extremely well suited for the laboratory technician.

The impression is gained that entirely too much space is devoted to the historical aspects of the early writers and workers in this field. The thought is also expressed that conciseness and brevity in connection with the various tests for analysis of the urine specimen would enhance the value of the book. A comparison of the various tests is included. Nevertheless, it is obvious that this text should be a part of the library of the up-to-date laboratory technician.

W. R. H.

#### BACKACHE AND SCIATIC NEURITIS

By Philip Lewin, M.D., associate professor of bone and joint surgery, Northwestern University Medical School; attending orthopaedic surgeon, Cook County Hospital; attending orthopaedic surgeon, Michael Reese Hospital; professor of orthopaedic surgery, Cook County Graduate School of Medicine, Chicago; Lieutenant Colonel, Medical Corps, U. S. Army. Lea and Febiger, Philadelphia, 1943. Price, \$10.00.

The author states in the preface of this volume that it is to be employed by the general practitioner as a guide to a correct diagnosis and the appropriate treatment. It does not fulfill this preface in any manner, but instead gives a minute description of the physical findings and the numerous tests to be employed in the examination. It does not give the examiner the interpretation of these findings nor does it formulate any definite treatment. In my opinion this book has little value for the general practitioner; however, I do think it has value as a reference book for the man in orthopedic surgery.

L. M. O.

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### MEDICINE IN A POSTWAR WORLD\*

LEE R. WOODWARD, M.D., Mason City

Hindsight is easy, but success comes only to those who have foresight, plus the fortitude to get prepared. The success of the Russians is not a happenstance but is the result of their foresight and fortitude. For one hundred and thirty years they have known the German general staff was preparing for conquest. They foresaw the present conflict. In their five year plan, which was ostensibly for industrial development but was actually a preparation for war, the Russian people went not only without luxuries but also many actual necessities. If they had not done so, they could not have stopped the German military machine in time to enjoy the successes they are now having.

For at least a century the Japanese have been preparing for conquest, seeking to establish the supremacy of the yellow race over the white. With half of the population of the globe in nearby Asia to begin with, it was not a drunken dream. California's 1912 law which made it impossible for the Japanese to own land there was a fortunate thing because it brought to our attention the fact that we would have to fight Japan within fifty years. About that time a book by Homer Lea, *Valor of Ignorance*, was published. It showed the plan of attack Japan would follow, and the actual occurrences after Pearl Harbor follow this book almost exactly.

The only thing the Japs did not foresee was the foresight and fortitude of the Chinese people. With five million soldiers and fifteen million civilians killed, and with seventy-five million refugees, they still fight on.

We did not have foresight. When Lindbergh told us of the German air power, it did not sound good to us and so we did not listen. When Japan went into Manchuria in 1931, we went on about our business undisturbed and consequently were

not ready on December 7, 1941. We had to sit by impotently and watch Japan take most of what she needed.

Our fortitude is now being tested. Japan is going to be difficult to dislodge. Will we have the fortitude to go through to the finish or will we settle for a negotiated stalemate with the certainty of another and worse war again in another twenty-five or thirty years? We missed invasion by the skin of our teeth this time. We will not in the next war. The Germans are going to throw their toughest veterans and best equipment against the Americans and we are going to suffer terrific casualties in the present fight. They are going to make us sick of war if they can. We shall need a lot of men yet, and it is touch and go whether we have enough men, and tough enough men, to see it through. It is our job as doctors to help weed out the unfit, to keep them out of the armed forces and on the job at home where they can make the materials the fighters are using at the front. It is also our job, and a very important one, to help rehabilitate the men who have suffered a crackup while in service and get them back into productive civilian life. One of the big questions today is manpower, whether we have enough men for the front lines and still enough workers to keep the front lines supplied.

If the military groups in these two war-mongering nations can be destroyed, we can see what the world may be like. If these military nations cannot be destroyed, we have to think of a world getting ready for another war. In 1917 and 1918, when the German military group saw they could not win, they started preparing for the present war even before the Armistice. At that time they had all the German women bred; the state took the babies at birth and raised them to be soldiers. They form the vanguard of the army which started this war. Today the military leaders in Germany are doing the same thing. They are breeding all the women they can in the occupied countries, taking the babies back to Ger-

\*President's Address presented before the Ninety-third Annual Session, Iowa State Medical Society, Des Moines, April 20 and 21, 1944.



many where they will be raised to be soldiers in another war twenty-five years from now.

I wish we could think, when the fighting stops, that our men will come back to an America the same as it was before they went away, but that does not seem possible. What made America what it was? It was its tremendous natural resources. There never was a country so bountifully blessed in every way with everything which a human being needs as this country. Our ancestors who settled it had the energy to develop these resources into the greatest wealth the world has ever seen. Here in America, with 6 per cent of the world's population, we had 40 per cent of the wealth of the world and 48 per cent of the annual income. Taxation was not burdensome, and anybody with the energy to work received the benefit of that which he earned. However, even before the start of the war, we had reached the place where the effects of this wealth were not all good. We had reached the place where everyone wanted to live an easy life and no one wanted to work, or else he worked too hard trying to accumulate too much.

Throughout this period doctors shared in this easy money, but the days of big income are now gone. The staggering cost of the war is going to make taxation an onerous burden from now on, in which the doctor must share. The natural resources have been used; the land has all been occupied; the forests have been reduced; the minerals have been exploited; the oil supply has been greatly depleted; the days of cheap gasoline are past.

Gone, too, are the golden days of surgery. People are not going to be able to pay big surgical fees or medical bills. The doctor never has created the economic situation in which he works, but his method of working has been adapted to the situation in which he found himself. Our social and economic situation is changing and we must change with it. These changes have been coming for a long time. Our forefathers, the hardy pioneers who settled Iowa, were individualists. With this Iowa land, none better anywhere, all they wanted was a chance to help themselves. They asked no odds of anyone and they did not need anyone's help. The land was free or very cheap and it made their independence possible. By hard work they made a living, and the increase in the value of the land made their wealth.

I am not minimizing our industry, but it is our land which makes our wealth and stability. Industry is not fixed, but the land is here to stay. Industry tends to collect in urban and metropolitan areas and it is in these areas that changes occur first and most rapidly. The metropolitan areas have socioeconomic students who can state their

needs clearly and forcibly and seek legislative action to get what they want. As the population of the metropolitan areas becomes greater, conditions therein approach those of Europe, and the trend has been to bring European plans to America. This has been true for a long time, but in 1928, with the appointment of the Committee on the Cost of Medical Care, actual pressure to get something done began. We in Iowa cannot remain isolated from such a movement any more than we as a nation can remain isolated from the rest of the world. What affects the medical profession in New York and Michigan and Illinois and California will also affect us in Iowa. We have been too isolative as a profession. We must take a more active part in government—local, state, and national—if we are to have any voice in the changes that will come. The present time, with low unemployment and high wages, is ideal for increasing the Social Security program through some such medium as the Wagner-Murray Bill. Now is the time we must act. It is not enough merely to fight this bill; we must foster a constructive program to give the people what is desirable without including the objectionable features of the bill.

What is necessary for Iowa? We have no large metropolitan areas, but we have ten counties classified as industrial in which we have a predominantly urban population for whom some method of prepayment care on an insurance basis must be planned. For the other countries, which are predominantly rural with only small towns, it is largely a question of getting good doctors with adequate hospital facilities. Young doctors usually are not attracted to small towns, and too often when an old doctor dies his place is taken by an osteopath. These small towns do not need a metropolitan hospital with all the expense involved in supporting it, but they do need a hospital at home where the people may receive care for most of their illnesses, with only the individuals with unusual cases finding it necessary to go to larger hospitals.

In this connection, it is timely that the Iowa State Medical Society plan a definite program for the postwar period which would take into consideration the needs of public health and medical service in every part of the state. This probably could best be done by a special committee appointed by the House of Delegates, whose duties would be to make a comprehensive survey of the distribution of qualified medical practitioners, the need for additional hospital and diagnostic facilities, and the character of public health service to be developed in each community or district. It should be a further purpose of the Committee to

determine the extent to which the community would be responsible for providing such facilities. In order to attract the best qualified physician for each particular community, it is essential that the community realize the need for, and provide, the necessary facilities for giving the highest degree of medical service to its people.

The inspection, standardization, and approval of hospitals have been good things in metropolitan areas, but they have no place in a rural area. Fundamentally, the small hospital should meet entirely different standards.

The training of doctors for small town practice is something to which medical schools must give attention. We have too many specialists and too few doctors. I am not criticizing the medical schools for this. It has been a trend, but now the schools must take the lead in getting back to the training of physicians instead of specialists. Medical students have, in the past, wanted specialist training because the rewards were greater. The medical course has become too long and expensive. A young man gets started too late in life. He has to wait too long to get married and have his family unless his parents can afford to support him during this time. For most of Iowa, the problem is making the conditions in small towns comparable to those in larger centers. I do not think subsidization is the answer.

What things are going to affect the practice of medicine in Iowa? First is the outcome of the war. If the military machines of Germany and Japan are destroyed, it may not be necessary to maintain large armed forces, but if the war ends in a stalemate, it will be necessary for us to maintain tremendous armed forces which will keep many persons in service permanently.

Next, what will the Veterans Administration Facilities do? It seems certain they will take entire care of the men returning from service. The only argument may well concern whether or not they will include the families. In any case, the Veterans Administration will employ a large number of doctors and take care of a large number of people.

I look for an expansion of industrial medicine. This will go a long way toward meeting the problem in our industrial counties. Any physician with experience in industrial practice knows that the present program of examination of employees and care of accidents is not adequate. An extension to take care of sickness of the employees can certainly be developed, and I believe ultimately it will include their families too. The development of this program needs watchful guidance by medical

men if it is done to give the best care to the people involved and be most satisfactory for the doctor.

Health departments will also do more work. It is difficult to visualize into just what form this will develop. We have tried to keep the line of demarcation sharply drawn between the prevention and treatment of disease, but that line was completely broken down in the EMIC program. Now we hear the slogan that the health of our people is our most valuable asset and anything that pertains to health in any way is a function of the health department. Here again public health work is needed much more urgently in congested areas, and the methods evolved for metropolitan situations are not applicable to rural areas.

We have heard a great deal about hospitals extending their service to cover complete care of the patient, including outpatient care. This again is a metropolitan development and not applicable in Iowa except in a few of our larger cities. Hospital staffs are being organized on that basis, with the attending staff taking care of patients in the hospital and the courtesy staff outside. Here, too, doctors must lead or be led. If the patient goes to the hospital, and the hospital calls the doctor, eventually doctors will be working on salary for the hospitals.

During the past two years we have had to work hard but fortunately very little has been charity work. Doctors have had the best income they have ever had, but that has been due to the economic situation. Whenever pigs are selling for a good price, doctors get their money; when the price of pigs goes down, so does our income. High prices will not continue forever. Now is the time to plan for an era of lower prices when patients will find it difficult to pay, doctors' incomes will go down, and people will feel the hardship of sickness more than even in the past. Sickness always is a calamity for the individual, and too often it is a financial catastrophe for families of moderate means. The great majority of our work will be with this group, and I think we should help them find a way to ease the financial loss.

America has an opportunity now for medical leadership of the world. The only other country to challenge us is Russia. The Russians have done and are doing some marvelous work, and will continue. The New York Academy of Medicine is studying the postwar problem and is looking especially to South America. China is going to emerge from this war with a different attitude. She is through being exploited and will turn to her friends for medical leadership. We must be prepared to grasp this opportunity for giving the very best of scientific medicine to the world.



In conclusion, even as we try to look to the future, the pressing needs of the immediate present almost force us to concentrate our attention on winning the war. That alone is such a gigantic task that it absorbs most of our fortitude.

Let us try to see what the postwar world will be. First of all, the Slavic peoples will hold northern Eurasia from the Baltic to the Pacific, and from the Arctic south to where? They want outlets to warm water on the Mediterranean and the Yellow Sea. They will compete with us for world commerce. The southeastern part of Asia from China around to India, with one-half of all the people on earth, must be taken into account. The people are not in a mood to be exploited any longer. China will be the most advanced of this group. Then we have the English speaking commonwealths of the world, America north of the Rio Grande (United States and Canada), South Africa, Australia, and New Zealand, together with the British Isles. These countries must work together.

If we can, we must cooperate with the Latin speaking countries south of the Rio Grande, but they will not be exploited either. It will take very tactful work to handle them. Africa has been the great unknown and has been difficult to know because of disease. This war has improved our control of tropical diseases, however, and after it is over, development of Africa will be more rapid.

What of Europe? It will not be all German as the German general staff sought to make it. All the countries of Europe will be busy rebuilding, but they have for ages lived by exploiting the rest of the world and will seek commerce for money and material with which to recoup.

As to Japan, there is the big question. All she has seized must be taken from her otherwise she will have tremendous resources and flood the world with cheap imitations such as we bought in our dime stores before the war.

As we see the world, the reconversion to peacetime conditions is not going to be easy. We are going through the war on what we do not say is inflation, but there is a lot of loose money around. How are we going to avoid unemployment? How are we going to stabilize prices and values? How are we going to take care of the enormous public debt?

During this time of readjustment people are going to be sick. We must have ready the means of giving them medical care at prices they can pay, or someone will do it for us. That is the challenge before the medical profession today.

## HEART CLINIC\*

HARRY L. SMITH, M.D., Rochester, Minnesota†  
EDWARD W. ANDERSON, M.D., Des Moines, and  
GEORGE E. MOUNTAIN, M.D., Des Moines

*Dr. Smith:* I should like to present two cases this morning. I hope they will be of some interest even to those of the audience who are not especially interested in cardiac disease.

The first patient we wish to present is under the care of Dr. E. W. Anderson of Des Moines, Iowa. Dr. Anderson has studied the case very thoroughly and he has kindly consented to present it. He will present a summary of her history.

*Dr. Anderson:* Mrs. I. W., sixty-one years of age, was first seen at the Broadlawns Clinic in 1934. At that time her entrance complaint was dyspnea, nervousness, and some headache. She weighed 252 pounds. Her blood pressure was 160 systolic, 110 diastolic.

In her family history, her father had died at the age of seventy-two of dropsy; her mother had died at the age of eighty-four of heart disease and hypertension. There was nothing of any especial interest in her past medical history, except her rapid gain of weight following an operation of a dilatation and curettement twenty-six years ago. She gained this weight fairly rapidly and had done nothing in the way of dietary management for reduction.

Her blood count and urinalysis were negative. X-ray films of the chest and an electrocardiogram were unsatisfactory. She was put on a reduction diet, which was not followed very well at home; however, we showed her it could be done by putting her in the hospital for one week, during which she lost six pounds on a diet on which she had been unable to lose at home.

She had been seen intermittently about every two or three years with her blood pressure being 160 to 170 systolic and 100 to 110 diastolic.

She had never shown any urinary symptoms, had never been decompensated, but had complained constantly of the dyspnea, with some dizziness. Sedatives were given her and at one time she was given thyroid extract in the endocrine clinic.

In February of this year she came in complaining of symptoms in which a diagnosis of acute cholecystitis was made. She had had some qualitative food distress for the past two years. Her weight was 225 pounds; her blood pressure was 160 systolic and 110 diastolic. Her examination was otherwise negative.

\*Presented before the Ninety-second Annual Session, Iowa State Medical Society, Des Moines, April 29 and 30, 1943.  
†From the Section on Cardiology, Mayo Clinic.

Dr. Smith wants to discuss with you the fatty heart which this patient represents.

*Dr. Smith:* How does one proceed to establish a diagnosis of cardiac disease? I believe that if one thinks in terms of etiology it simplifies the problem a great deal. In the first place, there are not many causes of cardiac disease. The most common cause is hypertension or coronary sclerosis (arteriosclerosis) or a combination of the two. The next fairly common cause is rheumatic endocarditis. This condition may be acute, recurring, or chronic. Most heart cases one sees can be classified in one of three or four headings. If one thinks in terms of etiology, I believe it simplifies the making of the diagnosis.

It is true that there are some other causes of heart disease. One cause is syphilis, which is not common. Another is goiter. It is uncommon for goiter to produce heart disease in a patient under forty years of age, provided there is no other disease process present. There are also the congenital lesions. However, most cases of cardiac disease can be classified under a few headings.

In the first place, how is one going to proceed in order to establish a diagnosis in Dr. Anderson's case? The patient has hypertension, which she has had for nine years. It is true that her high blood pressure has not been severe. However, she has had another condition, obesity, which is an important contributory factor in producing cardiac insufficiency, although obesity alone rarely produces cardiac disease or actual congestive heart failure. Occasionally it does. I think that the predominating symptom in this woman's case is her dyspnea, and that it is due to her adiposity. She does not have endocarditis. She has one of the most common conditions which produce heart trouble or cardiac insufficiency, and that is high blood pressure. The cause of high blood pressure is unknown. The patient does not have a goiter. She does not have a congenital cardiac lesion. What is left for her to have? She has hypertension, and she probably has some coronary sclerotic changes. However, her chief symptom is shortness of breath.

Many years ago, adiposity of the heart or fatty heart was much written about and much discussed. Today, rarely does one find a diagnosis made of fatty heart or adiposity of the heart. The confusion of terms has made it rather difficult to have an accurate knowledge of the condition this patient represents. The following terms are used interchangeably: fatty heart, fatty degeneration, fatty infiltration, fatty metamorphosis, obesity of the heart, and adiposity of the heart.

There are two main types of fatty heart. One of them is fatty degeneration. That is the type

of fatty heart about which the pathologists write. In it the changes take place within the muscle cell; that is, there is a diminished utilization of fat which is normally brought to the muscle cell. This is seen especially in chloroform poisoning, phosphorus poisoning, or pernicious anemia, as well as in certain cachectic conditions such as cancer or late stages of tuberculosis. Rarely, if ever, does this type of fatty heart produce congestive heart failure.

Chapters are written on this type of fatty heart but usually only a sentence or two is devoted to the type of fatty heart which is associated with generalized obesity. There are many places in the body where fat is deposited normally. These places are the mesentery, the omentum, under the skin, around the kidneys, around the orbits of the eyes, and around the heart.

How does obesity produce congestive heart failure? Rarely does uncomplicated obesity produce congestive heart failure, although occasionally it may. This fat is deposited all over the heart. Some specimens of fatty heart are unrecognizable because of the excessive amounts of fat. The fat is deposited around the heart, mainly around the roots of the great vessels, along the coronary arteries, in the sulcus between the ventricles and the auricles, and along the anterior and the posterior surface of the right ventricle. Fat is deposited more on the right ventricle than on the left. I do not know the reason for this. A heart that contains excessive amounts of fat cannot be as efficient as a heart that does not have fat. Often this fat will penetrate into the muscles. It will extend through the myocardium and surround every muscle bundle and actually every individual muscle cell. Those are the local changes which explain why a heart like that is not as normal and cannot be as efficient as one which does not contain that amount of fat.

The other reasons why these patients have cardiac symptoms are general causes: the increased amount of work which the hearts of obese patients have to do, and the mechanics of carrying around this excessive amount of fat. The comment has been made that it requires more work to carry around an excessive amount of fat than it would require to carry around the same amount of cement, because the patient would not have to nourish the cement, whereas he does have to nourish the fat.

As a rule, there is a close correlation of the amount of fat around the heart with the fat which is deposited in the fat depots elsewhere in the body. Sometimes the fat will be more pronounced in the abdomen, sometimes in other parts. This is a rule: the fatter the patient is, the more fat he



is likely to have on his myocardium. This fat is subepicardial; that is, the fat is deposited beneath the epicardium.

One woman, who weighed about 250 pounds (113 kilograms), had severe congestive heart failure. Her heart weighed 650 grams; the normal weight of the heart of a woman of average total weight is about 250 grams. I think that, because of the excessive amount of work thrown on the heart by this obesity, the metabolism of such a patient is higher than normal. The cause of cardiac hypertrophy in these cases is about the same as if the patient had had hypertension; that is, there is left ventricular strain.

A cross section of this woman's heart showed an excessive amount of fat. It was more than one inch (2.5 centimeters) thick. The left coronary artery was separated from the muscle by deposits of fat. I do not know that that is of particular significance. In the left ventricle there was a definite line of demarcation between the fat and the muscle. In the right ventricle, on the other hand, the line of demarcation was completely obliterated so that it was impossible to tell where the muscle began and the fat ended. The fat had penetrated completely through the wall of the right ventricle. I believe it would have been a little more serious if this fat had penetrated the wall of the left ventricle in the same proportion. This patient did not have high blood pressure as Dr. Anderson's patient did. If a patient has high blood pressure in addition to his obesity, there is more likely to be cardiac insufficiency than if he has obesity alone. For a heart to be as fat as the one of this woman is somewhat unusual, but the point I am trying to make is this: excessive obesity is a decided burden on the function of any myocardium.

A few years ago I was working on this problem. As I was going through the vats, trying to pick out fatty hearts, one of the men who had worked in the pathologic laboratory for many years said to me, "Oh, that isn't a fatty heart because it doesn't float." Here was a technician, who had not had a medical education, and yet he had observed that hearts which are sufficiently fat will float on water. I thought that was a good observation.

Ordinarily, one thinks of fat as being relatively nonvascular. It is true that adipose tissue is not as vascular as some other tissues of the body, but fat is not merely a passive tissue in the body. It contains a rather rich capillary supply. If one cuts through the abdomen and through the subepicardial fat, it is true that one does not find many large vessels, but one will find a pink surface where there is much oozing due to the capillaries.

To demonstrate the blood supply to the epi-

cardial fat, I injected India ink into the coronary arteries. The contractions of the heart forced the pigment into the capillaries which supply blood to the fatty tissues. In like manner I demonstrated the blood supply to the omental fat. I think this proves that there is a capillary for almost every fat cell. When a person puts on 25 to 30 pounds (11 to 14 kilograms) of fat, the body has to make yards of capillaries to nourish the additional fat. Therefore, the added fat does constitute an added burden for the heart.

A few years ago Dr. Willius and I reviewed data on all the patients who had had extreme obesity and had died from various causes. There were 136 cases. Briefly, we divided these 136 cases which we reviewed into four groups. In fifty-two of the 136 cases there was no cardiac disease. In about sixty cases there were varying degrees of congestive heart failure associated with hypertension and coronary sclerosis. In nine cases of these 136 there was severe congestive heart failure with nothing except great obesity to explain it. In fifteen cases there were various forms of heart disease unrelated to hypertension.

Some other interesting points came out in this study. Of these patients 19 per cent died from pulmonary embolism, 62 per cent had cardiac trouble of varying degrees, but only three of them had diabetes.

Regardless of what cardiac trouble one may have, it is definitely made worse if one is fat. As I explained previously, I think the fact that hearts are not as efficient if they are fat as when they are normal is due to certain local changes; that is, the excessive fat is around and under the epicardium, down between the muscles, and actually between all the muscle cells. There are also general causes, such as excessive amount of work and increased metabolism. So, with the two factors, I am certain that these patients' hearts are not as efficient as they would be if they did not have this excessive amount of fat.

The treatment is very simple. The most important treatment would be prophylaxis, to prevent this marked obesity. If heart failure does develop with obesity, one should treat congestive heart failure the same as any other heart failure, by putting the patient to bed; if his heart is fibrillating, one should give him digitalis; and if he has congestion, one should give him salyrgan and keep him at rest in bed. It is important to reduce the patient's weight. However, during the severe failure it is preferable not to reduce the weight drastically at first. Sometimes one can put a patient on a diet of 500 calories, but I do not like to put one on a diet as low as that during severe congestive heart failure. After the congestive heart failure

has improved, I think one can put the patient safely on a rather strict reduction diet. It is a difficult problem, because fat people like to eat and they do eat.

I have said this: We all have to grow old, but we do not have to grow old and fat.

The next patient is one which Dr. Mountain is going to present.

*Dr. Mountain:* The second case concerns a female seventy-one years of age who lived on a farm in southern Iowa all her life. Her past history is essentially negative except that in 1910 Dr. Charles Mayo took out a toxic goiter. She recalls at that time her pulse was so rapid that it was difficult to count. She comes of sturdy, long-lived Scandinavian stock.

Her present illness started Sunday morning, April 4, 1943. She was down at the barn helping her husband when she suddenly felt pain. She staggered up to her home and lay down. The next ten days she had frequent, daily periods of unconsciousness which would last a few moments; and she has described them as "passing away" spells.

During this time her pulse varied between 20 and 28 beats per minute and, also, she developed an aversion to food and drink. As a result, she became exceedingly dehydrated. After about ten days, she was given 1,000 cubic centimeters of intravenous glucose, 5 per cent, in normal saline, and also 1 cubic centimeter, hypodermically, of adrenalin in oil, 1:500. In six hours this medication was repeated; then the pulse rate was 36 and she was feeling much better and having no unconscious period.

At that time we felt she was strong enough to move to a hospital some distance away. There the adrenalin was repeated twice a day and later changed over to ephedrine-chloride-hydrochloride grains,  $\frac{3}{8}$ , three times a day.

An electrocardiogram taken in the home and repeated a week later revealed complete heart block, ventricular rate of 28 in the home and 36 in the hospital, and auricular fibrillation, an occasional extrasystole of ventricular origin.

The roentgenogram of the chest was essentially negative except the heart was tremendously enlarged. The apex was clearly to the left chest wall. Blood pressure ranged around 150/80. Laboratory work for blood and urine was entirely normal.

While in the hospital she complained of persistent nausea after eating and stated that for the past several weeks she had noticed, after eating a meal, she would taste it for several hours afterwards.

An x-ray film of the stomach revealed a normal stomach, but there was a four-inch filling defect

in the middle of the esophagus. Antispasmodic measures failed to relieve this, and the radiologist believed this was probably a neoplastic problem.

After about two weeks in the hospital, she thought she was strong enough, and was dismissed to a nursing home. Her pulse had remained between 38 and 44 beats per minute all this time. She had had no more fainting spells, and the only symptom she had had was persistent nausea.

In summary, we have a case of complete A-V block with Adams-Stokes syncope, complicated by a possible neoplasm of the esophagus.

Dr. Smith will now discuss the various types of syncope due to heart disease.

*Dr. Smith:* I should like to congratulate Dr. Anderson and Dr. Mountain on the efficient manner in which they have studied and presented these cases. I feel proud to have had at least something to do with Dr. Mountain's medical education. This case which he presented is one of complete heart block. Complete heart block is not a common disease.

Again, in approaching this subject, one should think in terms of etiology. What are the conditions which produce heart block? The most common cause of heart block is coronary sclerosis or arteriosclerosis. Another cause is acute infection.

Heart block can be divided roughly into complete and incomplete heart block, either permanent or intermittent, and bundle-branch block. This case which Dr. Mountain presented is one of complete auriculoventricular dissociation; that is, the conduction between the auricles and the ventricles is interrupted completely.

Other causes of heart block, in addition to arteriosclerosis, are the acute infections. I think it is not common, although it is more common than one is accustomed to believe, for complete heart block to develop in acute rheumatic fever, scarlet fever, diphtheria, or almost any acute infection. It may last only a few hours or a few days, entirely disappear, and not leave any serious residuum.

Often those types of heart block are unrecognized. They are not common but they do occur. Patients who have complete heart block may have good cardiac function, and they may live ten, fifteen, or thirty years with good heart compensation, with no symptoms of cardiac insufficiency.

When the heart fails because of heart block, the situation is usually serious. Here is a woman, seventy-one years of age, who has complete heart block. I am sure the basis for this is coronary sclerosis and cutting down of the blood supply to the conduction mechanism. When this occurs, it is usually serious. It is even more serious when fainting spells or Stokes-Adams seizures develop. In my experience, the most important thing in an



instance of this kind is to treat the cardiac decompensation, put the patient to bed, and, if he has congestion, treat it as one would any congestive heart failure.

To treat the unconscious attacks is often a difficult task. The medicines which are given—and, I think, the most efficacious ones—are epinephrine and ephedrine, but sometimes in these cases any medicine one gives will not control these attacks. If one puts the patient to bed and treats the congestive heart failure, often that in itself will control or cut down the incidence of these fainting spells.

What are the cardiac diseases which produce fainting spells? They are not many.

The most common cause of unconsciousness or fainting in heart disease is illustrated by the case Dr. Mountain presented; it is complete heart block, due to arteriosclerotic changes. The treatment of these is as follows: control the congestive failure; then epinephrine or ephedrine should be administered.

When a patient is having multiple fainting spells, the situation is trying to control. The most common cause of these fainting spells is arteriosclerotic changes. In the first place, it is unusual for patients who have heart disease to lose consciousness. When one is called to see a patient who has fainted or lost consciousness, it is about a twenty to one bet that the patient does not have heart disease or that the fainting spell is not due to heart disease.

The second most common cause of fainting in cases of heart disease is aortic stenosis, and the third is paroxysmal tachycardia. In prolonged spells of paroxysmal tachycardia, the patients may lose consciousness.

There is another group of cases in which the fainting spells are due, not to cardiac disease, but to a hyperactive carotid sinus. This is relatively common. During the past four or five years I have seen more than 300 patients who had hyperactive carotid sinuses. Syncopal attacks due to hyperactive carotid sinus are diagnosed often as heart block or idiopathic epilepsy. Although the carotid sinus is often confused with the carotid body, they are entirely different. The carotid sinus is a bulbous dilatation of the first portion of the internal carotid artery. In the figure in Gray's Anatomy illustrating the internal carotid artery, the carotid sinus is not shown at all. It is surprising that a structure as definite as the carotid sinus should be omitted from textbooks of anatomy. The carotid sinus is shown in the current textbooks of physiology, and it will be in the textbooks of anatomy written in the future.

Anatomically, there is not much difference be-

tween the walls of the carotid sinus and the walls of the rest of the artery. However, there are some changes. There is very little change in the intima. The media is supposed to be somewhat thinner than that of the rest of the artery. I have examined many slides of walls of the carotid sinus. I am not a histologist but I could not detect any gross differences. The wall is slightly thinner than that of the rest of the artery. It is supposed to contain some special nerve endings, but I think that point has not been proved.

The nerve supply to the carotid sinus is mainly through a branch of the ninth cranial nerve, known as the nerve of Hering. The sinus also receives some nerve supply from the superior cervical ganglion.

Some of the functions of the carotid sinus are known. There are probably also many of its functions which are not known. It has something to do with controlling respiration, blood pressure, and heart rate. When the nerve of Hering of an animal was stimulated with an ordinary induction current, its respirations became deep and slightly slower than before stimulation. When the stimulus was discontinued, the blood pressure fell. Afterward the animal was restimulated but nothing happened. This is often true when this syndrome is elicited in testing a human subject.

Everyone has this dilated bulb, the carotid sinus. The size of the bulb has nothing to do with the sensitivity. Why some people become hyperactive, I do not know. The respirations during an induced attack of a person who has a hyperactive carotid sinus are slow and deep and labored.

During an induced or spontaneous attack, the blood pressure usually falls, although one is rarely able to check the blood pressure during an induced attack. To induce an attack, one makes pressure on the carotid sinus, which is easily palpable. One can palpate it on practically everybody. The pressure usually will slow the pulse and reduce the blood pressure or it may actually produce cardiac standstill. In one series of observations, when pressure was applied over the carotid sinus, the subject immediately became unconscious and the heart stopped for about six seconds. The electrocardiogram was similar to that of ordinary complete heart block. The long periods of ventricular standstill are characteristic of both. However, in complete heart block the auricles contract of themselves; they have a rhythm of their own. The subject became unconscious because of this complete standstill. When the subject regained consciousness, the heart became fast again.

How does one make a diagnosis of hyperactive carotid sinus? Patients usually tell some such history as that of Dr. Mountain's patient, and it

may be difficult to distinguish between hyperactive carotid sinus and idiopathic epilepsy. Usually the patients have their spells when they are sitting or standing. Rarely do they have an attack when they are lying down. The spells may last from a few minutes to twenty minutes or half an hour. These patients may have a generalized convulsion. The proof of the diagnosis is made by mechanically pressing on the carotid sinus and inducing an attack.

*[A motion picture illustrating a few cases of hyperactive carotid sinus was shown.]*

In this case, the patient had had these fainting spells for about three years. He had been at the clinic. The first time he was there, we had considered the spells to be due to epilepsy.

Here is another patient. He had had spells for about a year and a half. The spells usually last a few minutes. Rarely do they last longer than ten or fifteen minutes, although occasionally they may. In normal persons one is not able to reproduce these spells.

This woman had her spells for about five years. Often these spells are brought on by suddenly turning the head to the right or to the left, or by suddenly changing the position of the body. Therefore, she learned to turn her head with her body. If she turned her head quickly, she would often get a spell.

Here is a blacksmith, who had often fallen and hurt himself at his trade. He had many spells daily. I am sure that earlier such spells were diagnosed as epilepsy.

This is a rather interesting case. During this attack, notice the subject's exophthalmos. His eyes actually bulge out. The exophthalmos is conspicuous from a side view.

Here is one of the earlier cases we encountered. This man had severe congestive heart failure. If the carotid sinuses are hyperactive, one can induce the reaction by mechanically stimulating one side.

This patient lived in Rochester. Her condition had been diagnosed previously as hysteria. Note the convulsive movements of her hands. Sometimes these are very easy to elicit. Sometimes merely making very slight pressure on the skin, trying to locate this bulbous portion, will induce an attack.

Here is another person, quite similar to the one just shown. She had her spells for about six months. She usually recovered very quickly after these spells. Patients usually do not feel as drowsy or badly following a spell due to hyperactive carotid sinus as following an epileptic seizure, although sometimes it is rather difficult, from the history, to distinguish between the two conditions.

Usually these people are about middle age or older but some of them are quite young. Hyperactivity of the carotid sinus sometimes occurs in the thirties. This person, I think, was thirty-four years old.

The treatment of this condition can be divided roughly into three groups. If these attacks are mild and infrequent, no treatment is necessary except to reassure the patient. If the spells occur frequently and are severe either phenobarbital or phenytoin sodium (dilantin sodium) gives better results than any other medication one can try, although sometimes any medication is not very efficacious.

We have operated in twenty or more cases of severe hyperactivity of the carotid sinus, and I think that in most cases surgical treatment is not to be recommended. The procedure involves cutting all the nerve supply to the carotid sinus. If one has a case in which the spells are occurring often and are severe, then, if a thorough trial of medication has not produced any improvement, I think one would be justified in recommending surgical treatment, since it is not a mutilating operation or one that entails much risk.

*Question:* Should one operate on both sides?

*Dr. Smith:* Operate on the side that is most active. One may have to denervate both sides but our results have not been wholly satisfactory. In some cases the operation seemed to produce a radical cure, and in others it seemed to be of no benefit at all.

In cases of severe hyperactivity of the carotid sinus, if the patient continues to have attacks, I think one is probably justified in operating. If the patient does not receive any benefit, at least he is not harmed by this operation, since it is not, as I said, a mutilating operation. It is one which involves only a slight risk.

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## PENICILLIN IN THE TREATMENT OF SEVERE STAPHYLOCOCCIC BACTERIEMIA WITH COMPLICATIONS

Report of a Case\*

J. DONALD ANDERSON, M.D.

LEE FORREST HILL, M.D., Des Moines

Within the next few months penicillin will undoubtedly be available for general use in civilian practice. By that time it will be necessary for all physicians to have familiarized themselves with the information concerning its indications, methods of administration, and dosage which have been accumulated since its discovery in 1929 by Professor Alexander Fleming<sup>1</sup> of London. The pur-

\*From the Pediatric Service of Broadlawns General Hospital,



pose of this communication is to record in the literature the successful treatment with penicillin of a nine year old boy desperately ill with staphylococcic bacteriemia complicated by metastatic lesions in several bones and in the lungs. That this seemingly hopelessly ill patient is not only alive today but is even practically restored to full normal function is a miracle which only those can fully appreciate who have seen the unfortunate results of similar cases in which the patients have received the best of our former therapeutic armamentarium.

What is this substance, penicillin, that performs such miracles in the bacterial world, and what are the facts concerning its discovery and development? Briefly, some of the highlights may be stated here. In September, 1928, Professor Alexander Fleming was engaged in a study of culture



Fig. 1. X-ray film September 19, 1943, which shows pneumothorax of left lung and pneumonia at base of right lung.

plates of staphylococcic organisms. One of the plates, exposed to the air, grew a contaminating mould colony. For a considerable distance round this mould colony the staphylococcal colonies were undergoing lysis. It is fortunate for the world, indeed, that Professor Fleming's previous training and interest was such that the phenomena he observed in the culture plate were significant and aroused his curiosity sufficiently to cause him to investigate further, else the story of the boy we are relating in this paper, and thousands of others like him, could not be told. The mould which produced an antibacterial substance capable of inhibiting the growth of staphylococci was later identified

as *Penicillium notatum*, and to the active ingredient Professor Fleming gave the name "penicillin". He further demonstrated that penicillin effectively inhibited the growth of the streptococcus, pneumococcus, gonococcus and diphtheria bacilli, but had no effect on *Bacillus coli* and *Haemophilus influenzae*. Although he continued using penicillin in his bacteriologic work and even expressed the opinion that it might be "an efficient antiseptic for application to, or injection into, areas infected with penicillin-sensitive microbes," he was unable to concentrate the antiseptic substance sufficiently for therapeutic use. A final contribution of Fleming in these early days was to demonstrate that penicillin did not destroy leukocytes, nor was it toxic when injected into animals.

The next important step in the development of penicillin was the discovery of its chemotherapeutic properties by the Oxford workers, Chain and Florey,<sup>2</sup> who in 1938 undertook a systematic investigation of several antibiotics, among which was penicillin. They first showed that penicillin was an acid, but in this form it was very unstable. Eventually they succeeded in developing a protein-free preparation of a stable salt of penicillin and demonstrated many of its biologic properties. Among these may be mentioned its ready absorbability following intramuscular or subcutaneous injection; destruction of it by the acid of the gastric juice and the inactivation of it by bacteria in the rectum, thus showing that these routes of administration could not be used; its rapid excretion from the body through the urine; its lack of diffusibility from the blood into the spinal fluid; persistence of inhibitory action on sensitive bacteria in the presence of pus, tissue autolysates, blood and serum regardless of the number of bacteria present—properties which are not all possessed by the sulfonamides; and finally, that the inhibiting effect of the drug was bacteriostatic, not bacteriocidal, and that this effect resulted from interference with division of the bacteria. Thus it is apparent that a great deal was known about penicillin before it was ever subjected to clinical trial on human beings.

Fleming<sup>3</sup> had added to his original contribution by publishing a list of the penicillin-sensitive and penicillin-insensitive human pathogenic organisms.

PENICILLIN-SENSITIVE	PENICILLIN-INSENSITIVE
Staphylococcus	Typhoid, Paratyphoid,
Streptococcus pyogenes	Dysentery, Coli group
Other hemolytic streptococci (other than Group D)	V. cholerae
Streptococcus viridans (most)	Friedländer's bacillus
Non-hemolytic streptococci (most)	B. pyocyaneus
Pneumococcus	B. proteus
	Hemophilic bacilli
	Brucella
	B. pestis
	Enterococcus

Gonococcus  
Meningococcus  
M. catarrhalis  
Diphtheria bacillus  
Diphtheroid bacillus  
(most)  
Anthrax bacillus  
Actinomyces  
B. welchii and other  
clostridia

Nonpathogenic gram-  
negative cocci of the  
respiratory tract  
Tubercle bacillus  
Yeasts  
Moulds



Fig. 2. Final chest film October 21, 1943. Pneumothorax gone. Pneumonia healed.

Dr. M. E. Florey,<sup>4</sup> wife of Professor H. W. Florey, played a leading part in the early Oxford clinical trials of penicillin. As she states, the main points remaining for elucidation when these clinical trials were begun were: adequate dosage, frequency and routes of administration, and the most suitable methods for local application. The publication by the Oxford group of their results in the experimental and clinical studies with penicillin in 1940 and 1941 created intense interest in this country. In the summer of 1941 a visit to America by Professor Florey was arranged by the Rockefeller Foundation. As a result of his visit, research studies were immediately begun looking to the production of penicillin; and today the substance is being produced in large quantities in many laboratories in various parts of the country. As supplies became available in June, 1942, the Committee on Chemotherapeutic and Other Agents of the National Research Council, under the Chairmanship of Dr. Chester S. Keefer of Boston, was invited to organize and supervise clinical investigations in selected hospitals, the records to be coordinated by Dr. Keefer and his committee.<sup>5</sup> Some twenty-two qualified institutions were designated

by the committee to conduct these investigations. In August, 1943, the committee issued its first report<sup>6</sup> on the use of penicillin in the treatment of 500 cases of various types of infection. The infections studied were:

1. Staphylococcus aureus bacteriemia.
2. Local Staphylococcus aureus infections failing to respond to the sulfonamides.
3. Streptococcal infections failing to respond to the sulfonamides.
4. Pneumococcal, streptococcal and staphylococcal meningitis or empyema.
5. Pneumococcal pneumonia failing to respond to the sulfonamides.
6. Sulfonamide resistant gonococcal infections.
7. Subacute bacterial endocarditis.

The conclusions reached by the committee were that:

"Penicillin is a remarkably potent antibacterial agent which can be given intravenously, intramuscularly or topically. It is ineffective when given by mouth.

"Following intravenous or intramuscular injection it is excreted rapidly in the urine, so that in order to obtain an adequate amount of potent material in the circulating blood and tissues it is necessary to inject penicillin continuously or at frequent intervals; that is, every three to four hours.

"Penicillin has been found to be most effective in



Fig. 3. Follow-up film of right hand December 2, 1943, which shows osteomyelitis of middle metacarpal with new bone deposited about shaft.



the treatment of staphylococcic, gonococcic, pneumococcic and hemolytic streptococcus infections. It has been disappointing in the treatment of bacterial endocarditis. Its effect is particularly striking in sulfonamide resistant gonococcic infections.

"While the dosage schedule requires additional investigation, it seems clear that the average patient requiring intravenous or intramuscular injections for serious staphylococcic infections requires a total of between 500,000 and 1,000,000 Oxford units, and the best results have been observed when treatment is continued for at least ten days to two weeks. At least 10,000 units should be given every two to three hours at the beginning of treatment, either by continuous intravenous injection or by interrupted intravenous or intramuscular injections.

"Satisfactory results are obtained in sulfonamide resistant cases of gonorrhea following the injection of 100,000 to 160,000 units over a period of forty-eight hours.

"Patients with pneumococcic pneumonia frequently recover following the use of 100,000 units given over a period of three days. This is especially important in sulfonamide resistant pneumococcic infections. It may be necessary to give between 60,000 and 90,000 Oxford units daily for four to seven days to get a maximum effect.

"In the treatment of empyema or meningitis it is advisable to use penicillin topically by injecting it directly into the pleural cavity or the subarachnoid space.

"Toxic effects are extremely rare. Occasional chills with fever, or headache and flushing of the face have been noted. Urticaria has been reported and thrombophlebitis at the site of injection has been described."

Being aware of the remarkable beneficial effects of penicillin in severe staphylococcal infections from having just read the above report, the authors were especially eager to observe for themselves the action of the drug in their own case.

#### CASE REPORT

J. S., male, nine years of age, was admitted to Broadlawns General Hospital on September 19, 1943. Earlier in the summer an aching tooth had been treated by a dentist and a cavity had been filled. He had been well then until September 2 when he developed a fever and complained of pain in his back and neck. These symptoms persisted and a week later he was seen in the outpatient department of the hospital as a poliomyelitis suspect. His temperature then was recorded as being 103.6 degrees. A spinal fluid examination was normal. Two days later he was admitted to the contagious department with a definite diagnosis of poliomyelitis. During his stay of eight days he was very ill. His temperature curve was of the septic type with peaks reaching 104 degrees rectally each day. Chills were frequent and he was delirious much of the time. Cellulitis was noted over the lower part of his face the day after his admission, and the dorsum of his right hand became swollen two days later. He also complained bitterly of pain in his left leg, particularly upon attempted passive motion of the hip. His left lower premolar tooth was extracted

on September 16, and the orthodontist recorded a diagnosis of abscessed tooth and osteomyelitis of the mandible. On September 19 his condition had become still worse. Respirations had become rapid and grunting, and he was cyanotic. He was referred to the general hospital with a diagnosis of sepsis and pneumonia.

Examination at Broadlawn General revealed an extremely ill, markedly dyspneic and cyanotic patient. His pulse was rapid and weak. The whole lower face was swollen and tender. Many of the teeth in the lower jaw were loose and all of the incisors had fallen or been picked out. Pus exuded from the sockets. There was a swollen tender mass at the angle of the right jaw. Subcutaneous abscesses were present over the dorsum of the right hand and wrist, and over the



Fig. 4. Roentgenogram October 14, 1943, which shows osteomyelitis of necks of both femora. Right hip dislocated.

lower third of both tibiae. The left hip was fixed and extremely tender on attempted motion. There was a hyperresonant percussion note over the whole left chest, and breath sounds on this side were absent. The apex thrust of the heart was displaced to the right and was felt maximally at the left margin of the sternum. A crop of moist râles were found at the base of the right lung anteriorly. Rectal temperature was 103 degrees. The white blood count was 16,800. The following diagnoses were made: Staphylococcus bacteriemia, pneumothorax, left; staphylococcic pneumonia, right; multiple metastatic subcutaneous abscesses; septic hip joint, left; and osteomyelitis of the mandible. An x-ray film confirmed the diagnosis of pneumothorax and pneumonia (Fig. 1). Films of the tibiae, hip joints, and bones of the right hand showed no evidence of osteomyelitis at this time, but all became positive later. A blood culture was positive for staphylococcus aureus, and it is interesting to note that the sulfadiazine level made on a specimen of blood taken at the same time was 10 milligrams per cent.

The immediate treatment for the patient included aspiration of air from the left chest, constant oxygen, transfusion of 500 cubic centimeters of citrated blood, sulphathiazole and administration of 120,000 units of staphylococcus antitoxin. The prognosis at this time was considered very grave; in fact, it appeared to be quite hopeless unless penicillin could be secured for therapy.

Through the cooperation of Dr. Walter L. Biering, Commissioner of Health for Iowa, a supply of the drug was forwarded by Dr. Keefer. The authors take pride in being able to record this as the first case in the city of Des Moines in which the patient received penicillin therapy. Treatment was begun on September 23, approximately three weeks after the onset of illness. The first two doses were 15,000 Oxford units each, three hours apart, given intravenously by injection into the tubing of a continuous drip apparatus. Subsequently, 5,000 units were given every three hours by the same route with the exception of three days when the supply ran out. Supplemental intramuscular injections of 5,000 units every three hours were given for twenty-four hour periods on two occasions. The total amount of penicillin administered during the twenty-eight days of treatment was 960,000 units. Other treatment carried out during this period consisted of repeated blood transfusions (total 4,000 cubic centimeters); continuous oxygen by nasal catheter for ten days; continuous intravenous drip of normal saline or 5 per cent glucose solution; treatment of the pneumothorax by means of a mechanical device so arranged that positive pressure within the pleural cavity could be reduced as often as necessary; surgical drainage of all sub-



Fig. 5. Roentgenogram December 14, 1943, which shows improvement in bone destruction, particularly right femur, and new bone along shafts. No sequestra.

cutaneous abscesses; surgical drainage of the left hip joint; and traction, first applied to the left leg and later to both.

Perhaps the course of the patient's disease while under treatment with penicillin can best be

appreciated by breaking it down into the following topics: Effect of penicillin treatment on (1) temperature curve, (2) blood cultures, (3) white blood count, (4) toxicity of patient, (5) lesions present at beginning of treatment, (6) new lesions appearing during course of treatment, and (7) reactions.

1. Effect on temperature curve: No effect was noted during the first seventy-two hours. There was a drop of 1½ degrees from the daily peak of 104 degrees (rectal) for the next five days.



Fig. 6. Roentgenogram December 2, 1943, which shows appearance of right tibia and left fibula. No sequestra. New bone around shaft of lower end of left fibula.

During the next nineteen days there was continuous fever with the temperature ranging up to 102 degrees. It became normal and remained so twenty-eight days after the beginning of penicillin therapy.

2. Effect on blood cultures: Examination revealed 4 colonies per 2 cubic centimeters of blood the day treatment was begun; 3 colonies per 2 cubic centimeters of blood on the second day; and 1 colony per 2 cubic centimeters of blood on each of the two succeeding days. Daily cultures during the next seven days yielded no growth.

3. Effect on white blood count: The white blood cells numbered 18,800 the day therapy was begun, and gradually increased to a maximum of 25,500 on the ninth day. Then there was a gradual decrease. The white blood count was normal for the first time twenty-five days after penicillin therapy was started.

4. Effect on toxicity: There was little clinical





Fig. 7. X-ray picture of femur on March 21, 1944. Child now ambulatory. No fixation of either hip.

evidence of improvement noted until September 27, the fifth day of penicillin therapy, and after 210,000 units had been administered. This corresponds with the time taken to sterilize the blood stream. The evidences of improvement noted were that the patient was less stuporous, had a more alert appearance; there was a reduction in the peak of the temperature curve, a drop in the pulse rate from a high of 140 to 150 to around 120. Oxygen was administered continuously until October 3. Marked improvement was shown by the tenth day.

5. Effect on lesions present at the beginning of penicillin treatment:

- Osteomyelitis of mandible—Spontaneous healing occurred without loss of further teeth, and there was no bony sequestra.
- Pneumonia of right lung and pneumothorax of left lung—There was a marked diminution in clinical findings (râles) in the right lung in one week. Examination revealed a clear x-ray shadow October 6, thirteen days after penicillin therapy was begun. The left lung appeared completely re-expanded in an x-ray film taken October 21. Staphylococcal empyema failed to develop in the left pleural cavity, although it had been expected.
- Multiple foci of osteomyelitis: third metacarpal bone of the right hand, the right and left tibiae, and the necks of both femora—X-ray films of these areas at the time penicillin therapy was started failed to show evidence of bone destruction, although rupture through the cortex with an abscess forma-

tion and pus in the left hip joint space had already occurred. Abscesses on the hand, both ankles, and septic hip were drained surgically. The bones were not operated upon. Traction was applied first to the left leg and later to the right. Dislocation of both femoral heads occurred. Drainage from all abscesses except on the left hip ceased in about two weeks along with the swelling and tenderness. The left hip was still draining mildly at the time of the patient's discharge from the hospital on December 14. Subsequent x-ray plates revealed frank osteomyelitis in the right tibia, left fibula, third metacarpal, and both femoral necks; however, later x-ray plates showed no evidence of sequestra in any areas of osteomyelitis. On the contrary, healing was manifested by deposits of new bone. The last roentgenogram (Fig. 7) shows the appearance of the osteomyelitis of the femur on March 21, 1944. The child is now ambulatory with no fixation of either hip, which is indeed remarkable in view of the fact that a septic arthritis existed for at least a week before penicillin therapy was started.

6. Effect on new lesions becoming evident after beginning of penicillin treatment:

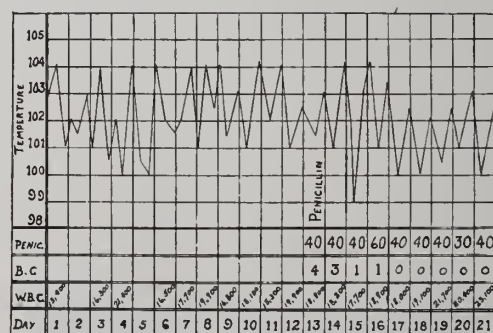


Chart A. Chart shows relation of administration of penicillin to temperature curve, blood culture, and white blood count. Days of illness date from admission to contagious hospital; child actually ill one week previous. Penicillin in one thousands. Blood culture in colonies.

- Thrombophlebitis of right iliac vein (?)—From September 25 to October 2 there was marked edema of the right half of the scrotum, whole right hip and thigh, and marked distention of the abdomen. Since this disappeared spontaneously a questionable diagnosis of thrombophlebitis of right iliac vein or neighboring veins was made. The only other explanation was edema secondary to osteomyelitis of the right femur.
- Pericarditis—For the first time (the heart was examined daily with probable development of septic pericarditis in mind) on Oc-

tober 2, nine days after the administration of penicillin was started, a definite pericardial friction rub was noted. This persisted with varying intensity (at times it was very marked) for approximately eighteen days. Pericardial effusion did not occur, at least not in demonstrable quantity. At one time, October 14, a systolic murmur became apparent giving rise to the speculation that possibly a bacterial endocarditis was present, and this was accounting for the persistence of fever and leukocytosis. The murmur was probably hemic, however, since it disappeared in a few days.

- c. Osteomyelitis of left humerus with secondary abscess formation — On October 5, twelve days after beginning penicillin therapy, a painful swelling in the region of the left elbow appeared. This increased in extent until the whole upper arm from elbow to shoulder was greatly swollen. Surgical drainage was instituted. X-ray examination showed a small area of osteomyelitis in the humerus. The swelling disappeared and the wound was healed in approximately two weeks.

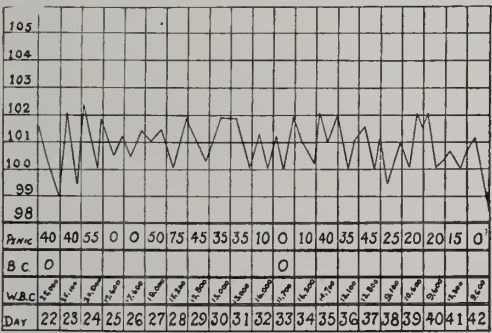


Chart B. Continuation of Chart A.

7. Reactions to penicillin: None was noted from the intravenous injections. The patient complained bitterly of a "stinging" sensation when the injections were given intramuscularly in concentration of 5,000 units in 1 cubic centimeter. In 5 cubic centimeters no special complaint made.

Two to three red blood cells per high power field were first reported in the daily urine specimen on October 8. These increased in number until on October 11 frank, dark, bloody urine was passed. Albumin was present, but casts were never reported. Gradually the hemorrhagic appearance of the urine disappeared, although penicillin administration was continued. The urine became microscopically free of blood cells one week after the last dose of penicillin. Whether the hematuria was due to penicillin or some other factor cannot be decided by the study made. Unfortunately, urine cultures were not obtained.

COMMENT

Those of us who saw this boy through his critical illness are unanimous in believing that penicillin was life-saving. It is freely admitted, however, that this is merely opinion and that no proof is available. Certainly no improvement was occurring as the result of other methods of treatment including the administration of sulfonamides, blood transfusions, and staphylococcic antitoxin. Indeed, positive blood cultures were obtained from blood which contained over 10 milligrams per cent of sulfadiazine. We were impressed by the prompt (four days) sterilization of the blood stream by penicillin, and by the rapid improvement and clearing of the pneumonic process. We feel, however, that full credit for this patient's recovery must be allotted, along with penicillin, to the adjunct methods of treatment employed. Among these may be mentioned blood transfusions (total 4,000 cubic centimeters), numerous intravenous injections of glucose, mechanical aids to relieving the positive pressure in the pneumothorax, oxygen, surgical attention given by the orthopedist to the multiple foci of osteomyelitis, and finally to the excellent nursing care the boy received. One probably would be doomed to disappointment if full reliance, in such a case as the one under consideration, were placed in penicillin alone.

Naturally, questions come to one's mind as to what the results might have been had different procedures in the employment of penicillin been used. For instance, should the daily dose have been larger or would equally satisfactory results have been secured with smaller doses? Also, in the known rapid excretion of the drug through the urine, was it wisest to use it in connection with a continuous intravenous drip? In this patient total intake of fluids, including that given parenterally, varied from 3,000 to 5,500 cubic centimeters daily with an output some days as high as 3,000 and 4,000 cubic centimeters. Was the penicillin washed out too rapidly, and would better results have been secured if the urine output has been held down to more normal levels? Answers to such questions as these undoubtedly will soon be available as the result of the experimental work going on not only in military practice but among civilians as well.

SUMMARY AND CONCLUSIONS

1. A brief historical resume of the discovery and development of penicillin is given.
2. A case is reported of a nine year old boy with severe staphylococcic bacteriemia complicated by osteomyelitis, pneumonia, and pneumothorax successfully treated with penicillin.



3. A total of 960,000 units of penicillin was administered during the course of his disease.

4. Not only is it felt that the penicillin was life-saving in this case but also that the child was undoubtedly rescued from the crippling effects of osteomyelitis.

5. No untoward reactions were encountered.

6. Penicillin is an effective therapeutic agent against staphylococcal infections.

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Note: The authors wish to express their appreciation to Dr. John C. Parsons for his assistance in managing the pneumothorax, Dr. Lewis M. Overton for his aid with the orthopedic phases and to the intern and nursing staff whose untiring efforts had much to do with the successful outcome of this case.

#### REFERENCES

1. Fleming, Alexander: The discovery of penicillin. *Brit. Med. Bull.*, ii:4-5, 1944.
2. Chain, E., and Florey, H. W.: The discovery of the chemotherapeutic properties of penicillin. *Brit. Med. Bull.*, ii:5-7, 1944.
3. Fleming, Alexander: Penicillin for selective culture and for demonstrating bacterial inhibitions. *Brit. Med. Bull.*, ii:7-8, 1944.
4. Florey, M. E.: Clinical uses of penicillin. *Brit. Med. Bull.*, ii:9-13, 1944.
5. Richards, A. N. (Chm.): Penicillin; statement released by Committee on Medical Research. *Jour. Am. Med. Assn.*, cxxii: 235-236 (May 22) 1943.
6. Keefer, C. S. (Chm.), Blake, F. G., Marshall, E. K., Jr., Lockwood, J. S., and Wood, W. B., Jr.: Penicillin in treatment of infections; statement by Committee on Chemotherapeutic and Other Agents, Division of Medical Sciences, National Research Council. *Jour. Am. Med. Assn.*, cxxii:1217-1224 (August 28) 1943.

### INTRA-ABDOMINAL APOPLEXY

ALBERT I. HAUGEN, M.D., Ames

The spontaneous rupture of an intra-abdominal vessel, while still a rare occurrence, has been reported with sufficient frequency in recent years to warrant its consideration in the diagnosis of any acute abdominal condition. Prior to 1933 only five cases were on record; since that time twenty more have been recorded. This communication presents a record of the twenty-sixth case.

Sudden intra-abdominal hemorrhage from the pelvic organs in women, spontaneous rupture of an aneurysm within the abdomen, and massive hemorrhage following trauma or in connection with a malignancy are all relatively common experiences in surgery; but the condition under discussion here rarely appears twice in any surgeon's records.

From a study of the reported cases we find that this accident occurs three times as commonly in men as in women; the age varies from twenty-seven to eighty years with about half the cases falling in the fifth and sixth decades. Sixty per cent of the victims were known to be afflicted previously with hypertension or had shown definite arteriosclerosis; in fact, several were in hospitals being treated for such conditions when the final episode came upon them. Abdominal apoplexy is obviously the abdominal counterpart of cerebral hemorrhage, and all those who have encountered

it in their practice are at a loss to explain its rarity as compared to cerebral apoplexy. Either condition, no doubt, usually depends upon degenerative atheromatous changes producing weak points in the arterial walls. It has been suggested that those occurring in younger individuals without hypertension may be due to congenital miliary aneurysms similar to those found in the basal cerebral arteries in subarachnoid hemorrhage, but in none of the reported cases has such a situation been recognized. Almost invariably the bleeding has been found to come from branches of the celiac axis or of the superior mesenteric artery. The case reported by Lewis<sup>10</sup> showed an aneurysm of the left gastric artery associated with syphilitic aortitis and perhaps should not be included in this series. The second case of Cushman and Kilgore<sup>20</sup> revealed a subperitoneal hemorrhage around the base of a Meckel's diverticulum, and may not be a true abdominal apoplexy. Their third case, while clinically very suggestive, was not verified by either operation or autopsy.

While surgery was performed in a few of the reported cases when the hematoma was still in an unruptured state, 80 per cent of them disclosed a hemoperitoneum, usually very massive; and even at postmortem examination the exact bleeding point could not be identified in many cases. In two instances, both younger men (Hartley and MacKechnie<sup>7</sup> and Bruce<sup>13</sup>), the finding of multiple discrete hematomas in the mesentery cannot readily be explained. In one of these, after his recovery, a careful search was made for blood dyscrasia but no evidence of such was found.

The clinical picture in abdominal apoplexy is essentially that of intra-abdominal hemorrhage and varies with the rate and extent of the bleeding. In about one-half of the cases there is primary collapse without prodromal symptoms; sudden excruciating pain, usually in the upper abdomen, nausea and vomiting, rapid pulse, subnormal temperature, clammy skin, lowered blood pressure, abdominal distention, more or less tenderness with or without rigidity, and shifting dullness in the flanks. In the other half of the patients the symptoms have not been that extreme at the onset; usually there is a sudden, vague, dull, abdominal distress, perhaps with nausea and vomiting, with slight or even no abnormal findings about the abdomen, and usually followed in a few hours by mild fever and moderate leukocytosis. The pain may subside for a few hours or days, may recur one or more times, and will sooner or later be followed by severe pain and collapse similar to that described in the first group. It is probable that many may have an unrecognized mesenteric hemorrhage and recover without going on beyond the

hematoma stage. Several of the histories indicate that the rupture of the hematoma and exacerbations of free bleeding may be induced or hastened by vomiting, catharsis, enemas, or intravenous fluids.

Approximately 80 per cent of the reported cases were surgical. In practically all instances the findings at operation were a distinct surprise to the surgeon. The tentative diagnosis made preoperatively or prior to necropsy has usually been that of any one of the more common acute nontraumatic abdominal emergencies, such as perforated ulcer, acute pancreatitis, or mesenteric thrombosis. Coronary artery disease has also been suspected. Crile and Newell<sup>16</sup> recognized a progressing intra-abdominal hemorrhage in their patient preoperatively; and Bunch and Madden<sup>19</sup> diagnosed abdominal apoplexy in their patient after finding intraperitoneal blood by paracentesis. In my patient the early symptoms and findings led to a diagnosis of acute appendicitis, and the limited exploration available through a McBurney incision did not reveal anything to suggest the true nature of his illness. Several days later when he went into extreme shock the progressive drop in hemoglobin and in the red cell count instead of the findings of hemoconcentration indicated that the shock was due to hemorrhage rather than to other causes, but the only source of bleeding we suspected was the seat of his recent appendectomy. Berk et al<sup>18</sup> also point out the value of repeated blood studies, hematocrit readings, specific gravity determinations, red cell counts and hemoglobin measurements, in differentiating intra-abdominal bleeding from conditions not associated with hemorrhage.

The preoperative diagnosis can be only tentative in those who have an essentially unruptured hematoma, but upon finding such a condition at operation the bleeding point can usually be found. In only six of the twenty patients operated upon did such circumstances prevail that the surgeon could deal directly with the bleeding vessel, usually by ligation. Crile and Newell resected the involved portion of transverse colon and its mesentery. Five of these six patients recovered.

On the other hand, those who, after one or more episodes of bleeding have developed a massive hemoperitoneum, present a picture making a surgeon hesitate to add the risk of operation to their already desperate condition. In thirteen such patients operated upon, the bleeding point could not be found to permit surgical hemostasis; but eight of these recovered. One might reasonably argue that these recovered in spite of operation and that others might have recovered had they been treated expectantly. The enormous quantity of blood

found in the peritoneal cavity at operation or at autopsy in these patients leads one to compare this problem to that of ruptured tubal pregnancy, where every surgeon agrees immediate surgery is indicated, or to that of bleeding peptic ulcer, where we know the tendency to fatal hemorrhage is greatly increased in individuals of the age groups in which abdominal apoplexy prevails and is a factor to consider in deciding for or against operative treatment.

The immediate indication in these cases is obviously to reestablish an effective circulating blood volume, first to the point of operability by means of intravenous serum or plasma, and then, after opening the abdomen, to salvage the large quantity of blood found there and after careful filtration to reinfuse it into the patient's veins. A good technic for autotransfusion is described by Griswold and Ortnier.<sup>22</sup> As pointed out in their article, also, the amount of blood or substitute put into the veins must be sufficient to overcome the amount lost: "The usual 500 cubic centimeter transfusion is the donor's dose and bears no relationship to the needs of the patient."

In all cases it seems reasonably important to keep the patient as comfortable and quiet as possible, to avoid catharsis, enemas, food, rough palpation, and other factors that might tend to cause more bleeding.

#### CASE REPORT

S. F., a white man fifty-five years of age, a post office employee whose previous health had always been good except for frequently recurring attacks of migraine, felt a vague abdominal discomfort the morning of August 11, 1943. By noon that day the pain became worse, mostly in the right lower quadrant, and was accompanied by nausea. When seen for the first time at four o'clock that afternoon, he was restlessly walking the floor holding his flat hand against the right lower quadrant of his abdomen. He did not complain of upper abdominal distress. Moderate tenderness, but no appreciable rigidity was found in the appendix area. It seemed a clear-cut case of appendicitis, and he was admitted to the hospital at 5:00 p. m. that day. Upon admission his temperature was 97.8 degrees, his pulse rate 88, and his white cell count 11,200. Within an hour he was given a spinal anesthesia and his appendix was removed through a McBurney incision. The appendix looked quite innocent; it was felt at the time that it did not account for the symptoms. There was no free blood in the peritoneal cavity, nor any exudate to indicate peritoneal irritation. The terminal ileum presented nothing abnormal, nor was anything wrong with the part of the mesentery which was exposed. There did not appear to be



any indication for exploring the upper part of the abdomen. The appendectomy was easily done with the usual technic, and there was no reason to expect any complication from that source. The following three days there was not much evidence of impending trouble. His temperature rose to 100.8 degrees and his pulse rate was 90 to 104. On the third day it was felt that his abdomen was more distended than was to be expected and he appeared rather listless. An enema apparently brought good results, but soon thereafter the patient became restless, and in the early morning hours of the fourth day he suddenly collapsed, became pale, cold and clammy, his pulse rose to 140 and his blood pressure fell to 72 systolic and 50 diastolic. After 1,000 cubic centimeters of glucose solution intravenously it came back to 110/70. He was given 500 cubic centimeters of blood serum and his condition improved, his skin became warm and dry, and his blood pressure rose to 134/90. Abdominal distention increased, however, and dulness was noted in both flanks. His hemoglobin at this time measured 74 per cent. Severe intra-abdominal hemorrhage was recognized, and reopening the abdomen to determine the source of bleeding was considered but was decided against in view of his apparent improvement. Later that same day there was evidence of recurrent bleeding—pallor, cold perspiration, and thready, irregular pulse at a rate of 144 being noted. Another transfusion with 500 cubic centimeters of whole blood resulted in appreciable improvement, and during that night and the morning of the fifth day his pulse rate was 130 and his blood pressure remained at 100 to 110 systolic and 60 diastolic. At that time his red blood cells numbered 2,010,000 and his hemoglobin was down to 49 per cent. A third transfusion with 500 cubic centimeters of whole blood was given. Suddenly on the afternoon of the fifth day the patient vomited, broke out in a cold sweat, gasped for breath, and expired.

Autopsy disclosed the peritoneal cavity literally full of clotted and liquid blood, perhaps more on the left than on the right side of the abdomen. The ileocecal region showed no evidence of bleeding from the field of recent operation. All the abdominal organs were normal, and no blood was found within the gastro-intestinal tract. The gastrotrophic omentum and the great omentum were normal, but the mesentery of the small bowel from its root out to the bowel attachment was one large, thick hematoma, the under surface of which was ruptured. The hematoma extended up around the pancreas, but there was no evidence of pancreatitis nor of bleeding within the pancreas. The original point of bleeding could not be identified. The mesenteric vessels did not appear appreciably

sclerotic, and the heart showed no evidence of hypertension. As in so many of the other recorded cases, it is very doubtful that the bleeding point could have been found at operation at any time after the original rupture of the hematoma, and any prolonged effort to do so would no doubt have proved too much for the patient, but we might have made good use of his blood by autotransfusion.

#### SUMMARY

1. An analysis is made of the twenty-five recorded cases of intra-abdominal apoplexy with regard to its etiology, clinical picture, diagnosis, and treatment.

2. Stress is placed on the importance of early recognition of hemorrhage as the cause of the patient's collapse, and on the necessity of prompt and adequate replacement therapy with blood and plasma during and after attempts to secure surgical hemostasis.

3. Report is made of a case mistakenly diagnosed appendicitis while in the simple hematoma stage. The patient, after a relatively silent interval of four days, developed recurrent episodes of collapse due to free intraperitoneal bleeding which proved fatal on the fifth day.

#### REFERENCES

1. Florence, M., and Duceing, M.: Contusion du rein: hémopéritoine; guérison spontanée: valeur diagnostique de la ponction exploratrice du cul-de-sac de Douglas (Rap. de Michon). *Bull. et mém. Soc. d. chir. de Paris*, xxxviii:645-650, 1913.
2. Hilliard, J. W.: Spontaneous haemorrhage into peritoneal cavity. *Brit. Med. Jour.*, i:231 (February 23) 1918.
3. Starcke, G.: Spontaneous rupture of gastroduodenal artery. *Ugesk. f. læger*, lxxxv:963-964 (December 27) 1923.
4. Budde, M.: Spontaneous rupture of gastro-epiploic artery. *München. med. Wchnschr.*, lxxii:1383-1384 (August 14) 1925.
5. Green, W. T., and Powers, J. H.: Intra-abdominal apoplexy. *Ann. Surg.*, xciii:1070-1074 (May) 1931.
6. Mourgue-Molines, E., and Cabanac: Abondante hémorragie intrapéritonéale par infarctus de l'épiploon-gastro-hépatique. *Bull. et mém. Soc. nat. de chir.*, lix:720-727 (May 13) 1933.
7. Hartley, H., and MacKechnie, D. M.: Case of "splachnostaxis." *Lancet*, i:289 (February 10) 1934.
8. Buchbinder, J. R., and Greene, E. I.: Intra-abdominal apoplexy. *Jour. Am. Med. Assn.*, cv:874-875 (September 14) 1935.
9. Thompson, K. W., and Dunphy, J. E.: Intra-abdominal apoplexy. *Ann. Surg.*, cii:1116-1118 (December) 1935.
10. Lewis, E. E.: Unusual cause of internal haemorrhage. *Lancet*, i:255-256 (February 1) 1936.
11. Moorehead, M. T., and McLester, J. S.: Abdominal apoplexy: fatal intraperitoneal hemorrhage due to spontaneous rupture of visceral artery. *Jour. Am. Med. Assn.*, cvi:373-374 (February 1) 1936.
12. Catler, C. W., Jr.: Mesenteric apoplexy. *Ann. Surg.*, civ:144-146 (July) 1936.
13. Bruce, John: Massive spontaneous intraperitoneal haemorrhage (spontaneous haemoperitoneum). *Lancet*, i:1451-1454 (June 19) 1937.
14. Morton, C. B.: Intra-abdominal apoplexy. *Arch. Surg.*, xxxvi:723-728 (May) 1938.
15. Silverstone, M.: Massive spontaneous intraperitoneal haemorrhage. *Brit. Med. Jour.*, i:230-231 (January 29) 1938.
16. Crile, G., Jr., and Newell, E. T., Jr.: Abdominal apoplexy; spontaneous rupture of visceral vessel. *Jour. Am. Med. Assn.*, cxiv:1155 (March 30) 1940.
17. Lafferty, C. R., and Pearson, B.: Intra-abdominal hemorrhage in essential hypertension. *Am. Jour. Surg.*, xlviii:460-462 (May) 1940.
18. Berk, J. E., Rothschild, N. S., and Doane, J. C.: Intra-abdominal apoplexy. *Ann. Surg.*, cxiii:513-520 (April) 1941.
19. Bunch, G. H., and Madden, L. E.: Abdominal arterial apoplexy. *South. Med. Jour.*, xxxiv:643-647 (June) 1941.
20. Cushman, G. F., and Kilgore, A. R.: Syndrome of mesenteric or subperitoneal hemorrhage (abdominal apoplexy). *Ann. Surg.*, cxiv:672-681 (October) 1941.
21. Halprin, H.: Abdominal apoplexy; report of a case. *U. S. Nav. Med. Bull.*, xli:811-815 (May) 1943.
22. Griswold, R. A., and Ortner, A. B.: Use of autotransfusion in surgery of serous cavities. *Surg., Gynec. & Obst.*, lxxvii:167-177 (August) 1943.

## THE FINLEY HOSPITAL CLINICO- PATHOLOGIC CONFERENCES

### ENCEPHALITIS COMPLICATING MEASLES

WALTER CARY, M.D., Dubuque

The central nervous system of young children is susceptible to injury by various toxins and by viruses. It is not surprising, therefore, that during the last quarter century, with our increasing knowledge of virus diseases, encephalitis as a complication of measles has received considerable attention in pediatric literature. The case to be described is typical of one form of this condition.

#### CASE REPORT

*Chief Complaint:* The patient, a white boy, five years of age, was admitted to the Finley Hospital January 24, 1944, because "he had stopped talking, was unable to swallow, and had lost interest in his surroundings."

*Past History:* Other than having had scarlet fever one year before, the patient had always been well.

*Present Illness:* The present illness can be best understood by the following chronologic notes:

January 10: Attended school.

January 11: Remained at home because of a cough.

January 12: Had a chill at seven in the evening.

January 13: Developed a typical measles rash (measles was epidemic in Dubuque during the winter).

January 14 and 15: Rash at its height and patient very ill.

January 16, 17 and 18: Temperature of 104.5 degrees.

January 19: Fever fell sharply after profuse perspiration at 2:00 a. m. Later that day the patient became irritable, cross, and complained that everyone was "dumb".

January 20 and 21: The patient became very quiet, talked only when spoken to, and had some difficulty drinking. The next day he stopped talking, whined all the time, but had no fever.

January 22: The patient developed rigidity of the neck in the morning, was unable to drink through a tube, and seemed to hear but did not respond or cooperate. In the afternoon he was lethargic; there was less rigidity of the neck but the jaws were set. There was little facial expression and he stared into space and did not move arms or legs. A diagnosis of probable en-

cephalitis was made and he was sent to the hospital where examination of the spinal fluid showed a clear fluid; cell count of 2; globulin, negative; sugar, normal positive; and no organisms in smear or culture. The general examination was negative. The temperature ranged between 97.8 and 98.8 degrees. The urinalysis was negative. The white blood cell count was 5,400 with 70 per cent neutrophils.

January 25: The patient was referred to the University Hospital at Iowa City, where the diagnosis of encephalitis also was made. Since there was no specific remedy, he was returned to this hospital on the evening of January 27. At that time he was unable to move his arms and legs, seemed to be in pain, and there was greater difficulty in feeding. He left the hospital the next day.

*Subsequent Course:* After being at home two days he became very irritable, whined a great deal, and began to use his legs, rubbing them together so much that an acute dermatitis appeared. The facial expression remained the same and the arms were flaccid. Three days later he was able to use the left arm freely. The next day he was also able to use the right somewhat. The Kenny treatment used in poliomyelitis was then used and, since it seemed to be beneficial, he was placed in a tub of hot water. On February 4 he became relaxed and began to talk and seemed amused at his own voice. His speech was very slow and he complained of headache in the occipital region. This was relieved by a hot pack. The next day, February 5, his speech was normal, his arms were strong, and his facial expression was essentially normal. He progressed steadily and returned to school February 28. There was no evidence of any sequelae.

#### GENERAL DISCUSSION

*Incidence:* According to Litvak, Sands, and Gibel<sup>1</sup>, who recently reviewed 56 cases, isolated cases of encephalitis complicating measles were recorded in English and continental European literature between 1889 and 1923. Since that time epidemic waves of postmeasles encephalitis have occurred in this country and abroad. They state that the incidence of this condition cannot be determined because not all the measles cases are reported and mild cases of encephalitis may not be recognized. According to most observers the approximate incidence is one in one thousand. It is also believed that the incidence of this complication is gradually increasing. Litvak and associates give the following table indicating the increasing incidence in several large cities in this country, as well as in London, England.



TABLE I  
INCIDENCE OF ENCEPHALITIS COMPLICATING MEASLES  
(after Litvak et al.)

Author and Year	Cases of Measles	Cases of Encephalitis	Rate
Top, 1937-1938, Detroit.....	30,000	2	1:15,000
Gunn and Russel, 1935-1936, London.....	13,156	5	1:2,000
Peterman and Fox, 1931, Milwaukee.....	15,001	13	1:1,150
Hoyne, 1937-1938, Chicago.....	37,831	32	1:1,200
Peterman and Fox, 1938, Milwaukee.....	27,081	14	1:1,900
New York, 1941.....	79,637	60	1:1,300

*Etiology:* There are four debatable theories as to the cause of encephalitis associated with measles: (1) that it is caused by the virus of measles which has acquired neurotropic characteristics; (2) that it is caused by a latent virus activated by the primary disease; (3) that toxins elaborated in the course of measles cause pathologic changes in the central nervous system; and (4) that the changes in the central nervous system are due to an allergic or anaphylactic reaction, the virus of measles being the sensitizing agent. While none of these theories has been definitely proved, the fact that the encephalitis may precede the usual signs and symptoms would seem to indicate that the first theory is most logical. Indeed Shaffer, Rake, and Hodes<sup>2</sup> were able to isolate the measles virus from the brain of a seven year old boy who died of encephalitis complicating measles nine days after the appearance of the rash.

*Onset:* While the onset of encephalitis in measles is more or less constant and the average period is four to six days after the appearance of the rash, according to Litvak and associates the encephalitis may precede the measles rash; it may precede the first symptoms of the invasion period; it may occur concomitantly with the rash; and it may occur up to twenty days after the appearance of the rash. They state that encephalitis arising fifteen days before or twenty-one days after the appearance of the rash should not be regarded as encephalitis complicating measles. In this case the first cerebral symptoms occurred on the seventh day after the appearance of the rash.

*Pathology:* Malamud<sup>3</sup> and <sup>4</sup> and Ferraro and Scheffer<sup>5</sup> have made extensive studies of the pathology of this form of encephalitis. Essentially the gross findings are hyperemia, engorgement, and at times petechial hemorrhages. Histologically, Malamud states the most significant changes are perivascular demyelination, glial proliferation, and less frequently plasma or lymphocyte cell infiltration, congestion, and hemorrhages. He emphasizes that the histologic picture varies depending upon the stage of the disease. Early it is probably of an exudative nature but later the signs of degeneration become evident. Primarily the changes occur in the white

matter, but in some instances spread to the gray matter of the brain or the cord.

*Symptoms:* The symptoms of encephalitis complicating measles vary depending upon the part of the brain involved and the severity of the attack. They are bizarre and evanescent, changing from day to day. Extreme drowsiness going on to stupor or coma, restlessness and irritability, disorientation and emotional instability are some of the more important in the sensorium. Headache, vomiting, nuchal rigidity, and a Kernig sign are common and indicate meningeal irritation. Convulsions or muscle twitchings, muscular flaccidity, facial paralysis, hemiplegia or paralysis of the extremities may occur if the motor areas are involved. In general the reflexes (abdominal, cremasteric or Babinski's sign) tend to be absent, but occasionally some reflexes may be hyperactive. Cyanosis and irregularity of breathing indicate involvement of the bulb; aphasia, loss of speech as in the case reported, urinary retention or incontinence are likely to occur. Indeed the wide variety of the neurologic signs is a striking feature of the disease.

*Diagnosis:* The diagnosis can usually be made when some of the foregoing neurologic symptoms arise in the course of measles. The temperature usually, but not always, rises to between 102 and 105 degrees. The white blood cell count rises moderately and early there is a preponderance of neutrophils. The spinal fluid may be under pressure and as a rule is clear, although it may be opalescent or tinged with blood. The cells are lymphocytes and may vary between normal to 500 cells per cubic millimeter. The sugar is normal; the globulin may be normal or slightly to moderately increased; cultures and smears show no organisms.

*Treatment:* The treatment is symptomatic and consists largely of good nursing care. For patients with bulbar paralysis the same procedures as used in bulbar poliomyelitis are carried out. There is no evidence that the sulfa drugs, convalescent serum or encephalitis vaccine have any effect. Hydrotherapy seems to be a logical procedure and it is interesting that in this case the Kenny type of treatment for poliomyelitis seemed beneficial.

*Prognosis:* In Litvak's series of 56 cases eight patients (14.3 per cent) died. In 60 cases reported to the New York Health Department in 1941, nine (15 per cent) died. According to Malamud, Ford believes that more than half of those who survive will show damage to the central nervous system and that if they are followed long enough this figure will rise to 65 per cent. This is an indication of the seriousness of the

condition. Fortunately, in the case presented there was no evidence of permanent damage to the nervous system.

#### REFERENCES

1. Litvak, Abraham M., Sands, Irving J., and Gibel, Harry: Encephalitis complicating measles; report of 56 cases with follow-up studies in 32. *Am. Jour. Dis. Child.*, lxxv:265-295 (February) 1943.
2. Shaffer, M. F., Rake, G., and Hodes, H. L.: Isolation of virus from patient with fatal encephalitis complicating measles. *Am. Jour. Dis. Child.*, lxxiv:815-819 (November) 1942.
3. Malamud, N.: Encephalomyelitis complicating measles. *Arch. Neurol. and Psychiat.*, xxxviii:1025-1038 (November) 1937.
4. Malamud, N.: Sequelae of postmeasles encephalomyelitis; clinicopathologic study. *Arch. Neurol. and Psychiat.*, xli:943-954 (May) 1939.
5. Ferraro, Armando, and Scheffer, I. H.: Encephalitis and encephalomyelitis in measles; pathologic report of six cases. *Arch. Neurol. and Psychiat.*, xxv:748-778 (April) 1931.
6. Stitt, Pauline George: Postinfectious encephalomyelitis; report of its occurrence following measles and vaccination for smallpox with complicating bromide poisoning. *Am. Jour. Dis. Child.*, lxxv:585-590 (April) 1943.
7. Hamilton, Paul M., and Hanna, R. J.: Encephalitis complicating measles; report on 241 cases collected from literature and on 44 additional cases. *Am. Jour. Dis. Child.*, lxi:483-493 (March) 1941.
8. Clemens, Harry H.: Pre measles encephalitis. *Jour. Pediat.*, xxii:731-734 (June) 1943.
9. Peterman, M. G., and Fox, M. J.: Postmeasles encephalitis. *Am. Jour. Dis. Child.*, lviii:1253-1259 (June) 1939.
10. Ziskind, Joseph, and Schattenberg, Herbert J.: Postmeasles encephalitis. *Arch. Path.*, xxvii:128-132 (January) 1939.

### EIGHTEENTH IOWA CONFERENCE ON CHILD DEVELOPMENT AND PARENT EDUCATION

"Teens in Transition" will be the theme of the Eighteenth Iowa Conference on Child Development and Parent Education to be held in Iowa City on June 21.

The one-day conference will consist of three sessions. At 9:45 a. m. Dr. Ralph H. Ojemann of the Iowa Child Welfare Research Station will lead a panel discussion on teen-age problems. Dr. Harold W. Saunders of the Department of Sociology at the University of Iowa will act as Summarizer. Other members of the panel will be Dr. Marie Skodak, Director of the Flint Guidance Center, representing the field of vocational guidance; Miss Alice Whipple, Secretary for the Iowa Council of Social Agencies, representing the field of community programming; Mr. Jack M. Logan, Superintendent of the Waterloo Public Schools, representing the field of school programming; and Mr. Robert L. Black, Superintendent of Recreation in Cedar Rapids, representing the field of recreation.

At a luncheon meeting Mrs. S. E. Lincoln, State Legislative Chairman for the Parent-Teacher Association, will discuss problems of securing legislation for children, from the point of view of local groups. Presiding will be Mrs. May Pardee Youtz, in charge of Parent Education Service, University of Iowa.

The final session will be at 2:30 p. m. Dr. John E. Anderson, Director of the Institute of Child Welfare at the University of Minnesota, will speak on ways of preparing children to meet the problems of adolescence. This will be followed by a

general discussion. Dr. Robert R. Sears, Director of the Child Welfare Research Station, will act as chairman.

The only part of the conference to be broadcast this year will be an opening address by Dr. Sears on the preceding evening over Radio Station WSUI. The exact time will be announced later. His topic will be "The Children in Your Town."

Headquarters for the conference will be at Old Capitol in Iowa City. Inquiries should be addressed to Mrs. May Pardee Youtz, W618 East Hall, Iowa City.

The conference, which is held annually, is sponsored by the Iowa State Council for Child Study and Parent Education, with the cooperation of the Iowa Child Welfare Research Station and the Extension Divisions of the University of Iowa, Iowa State College of Agriculture and Mechanic Arts, and Iowa State Teachers College.

### CONTINUATION COURSE IN SURGERY

The University of Minnesota announces the resumption of continuation study programs in medicine at the Center for Continuation Study. First in the series, which will cover all branches of medicine, is a three-day program in surgery to be held May 8, 9, and 10, 1944. Dr. Harold Brunn, noted surgeon, will be special guest instructor. Faculty has been selected from members of the teaching staff of the University of Minnesota Medical and Graduate Schools. Subjects will deal mainly with surgical problems of the abdominal and thoracic cavities. The surgical colloquiums which will be held at the University of Minnesota Hospitals will consist of informal conversations concerning patients who will be presented to the group. The registration fee is \$3.00; tuition is \$12.00; total, \$15.00. Further information may be obtained at the Center for Continuation Study, University of Minnesota, Minneapolis 14, Minnesota.

The Center for Continuation Study Building now offers complete meal, room, garage, and instructional service. Suggestions for subjects for future courses are solicited by the Director, Department of Postgraduate Medical Education.

### MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

#### Meeting of the Board of Trustees March 23, 1944

The Board of Trustees of the Iowa State Medical Society met in the central office Thursday afternoon, March 23, 1944, with two members present, Doctors O. J. Fay and John I. Marker. Minutes of the last meeting were read, corrected and approved; bills were authorized, and appropriations for the annual meeting were made.



# STATE DEPARTMENT OF HEALTH

*Walter L. Bierring*

## Eighteenth Annual Meeting of the Iowa Public Health Association

May 10 and 11, 1944, Hotel Fort Des Moines, Des Moines, Iowa

The Iowa Public Health Association will have its Eighteenth Annual Meeting May 10 and 11 at Hotel Fort Des Moines in Des Moines.

The program for 1944 will be of especial interest in that it will be presented in large part by guest speakers, selected and sponsored by the American Public Health Association.

Arthur Massey, M.D., Medical Officer of Health, Coventry, England, is to be one of the visiting guests. Dr. Massey will be in the United States at the invitation of the American Public Health Association and in cooperation with British Information Services. He was chosen for this purpose by Sir Wilson Jameson, Chief Medical Officer of the Ministry of Health, at the suggestion of Dr. Robert Parry of Bristol, who was in America in 1943 and who spoke on Some War-time Public Health Problems at the Association's meeting a year ago.

Other guest speakers will be Chauncey D. Leake, M.D., Dean, University of Texas School of Medicine; Haven Emerson, M.D., Minneapolis, Minnesota, Dean, Department of Preventive Medicine and Public Health, University of Minnesota; Ellis S. Tisdale, Sanitary Engineer, United States Public Health Service; Pearl McIver, R.N., Consulting Public Health Nurse, United States Public Health Service; Martha W. MacDonald, M.D., Psychiatric Services Adviser, United States Children's Bureau; George T. Palmer, Dr. P.H., Associate Field Director, Committee on Administrative Practice, American Public Health Association, and Reginald M. Atwater, M.D., Executive Secretary, American Public Health Association.

Bertha Harvey, R.N., Director, Visiting Nurses Association of Davenport, is President of the Iowa Public Health Association, and Paul J. Houser, Associate-Director, Division of Industrial Hy-

giene, State Department of Health, is President-Elect.

Physicians and local health officers are cordially invited and urged to attend the meeting.

The tentative program is as follows:

### Wednesday Morning, May 10

#### Main Ball Room

- 8:30 Registration
- 9:00 Address of Welcome  
Walter L. Bierring, M.D., Des Moines, State Health Commissioner  
Hon. John MacVicar, Mayor of Des Moines  
Response  
Bertha Harvey, R.N., Director, Visiting Nurses Association of Davenport, and President, Iowa Public Health Association
- 9:30 Highlights of the Changing Scene in Public Health  
Reginald M. Atwater, M.D., Executive Secretary, American Public Health Association
- 10:15 An Administrative Program for National Health Based on Local Health Units to Serve the Entire Population  
Haven Emerson, M.D., Minneapolis, Dean, Department of Preventive Medicine and Public Health, University of Minnesota

### Wednesday Afternoon, May 10

- 2:00 A Mirror for Public Health Practice  
George T. Palmer, Dr. P.H., Associate Field Director, Committee on Administrative Practice of the American Public Health Association
- 2:45 Meeting Present Public Health Nursing Needs  
Pearl McIver, R.N., Public Health Nursing Consultant, United States Public Health Service
- 3:30 Looking Ahead in Public Health Engineering  
Ellis S. Tisdale, Sanitary Engineer, United States Public Health Service

- 4:15 Environmental Control of Bacterial Evolution  
Leland J. Belding, M.D., Medical Director,  
District Health Service No. 11
- 6:30 Annual Banquet

Thursday Morning, May 11

- 9:00 Postwar Public Health Nursing Patterns  
Pearl McIver, R.N., Public Health Nursing  
Consultant
- 9:30 Disease Control With Chemicals  
Chauncey D. Leake, M.D., Dean, University  
of Texas School of Medicine
- 10:00 Mental Hygiene in the Child Health Confer-  
ence  
Martha W. MacDonald, M.D., Psychiatric  
Adviser, United States Children's Bureau
- 10:30 What Can the Public Health Profession Learn  
About Public Health?  
Reginald M. Atwater, M.D., New York, Exec-  
utive Secretary American Public Health Asso-  
ciation

Thursday Afternoon, May 11

- 1:30 Chemotherapy Goes Places  
Chauncey D. Leake, M.D., Dean, University  
of Texas School of Medicine
- 2:15 Public Health Stock Taking  
George T. Palmer, Dr. P.H., Associate Field  
Director, Committee on Administrative Prac-  
tice, American Public Health Association
- 3:00 Panel Discussion  
Reginald M. Atwater, M.D., Moderator  
Participants—Drs. Massey, Leake, MacDon-  
ald, Palmer, Miss McIver, and Mr. Tisdale
- 4:30 Business Session

ROCKY MOUNTAIN SPOTTED FEVER

CASES AND DEATHS

Rocky Mountain spotted fever has been reported in Iowa from year to year since 1933 when the first case was notified to the State Department of Health.

Cases of spotted fever and deaths from this disease for the eleven-year period 1933 to 1943 are listed in the following table.

TABLE I Rocky Mountain Spotted Fever in Iowa, 1933-1943		
Year	Cases	Deaths
1933	5	1
1934	5	1
1935	6	2
1936	1	1
1937	15	4
1938	5	0
1939	28	6
1940	18	1
1941	13	1
1942	16	0
1943	10	4
	122	21

With a total of 122 cases and 21 deaths, the case fatality for Rocky Mountain spotted fever covering the eleven-year period of observation, was 17.2 per cent.

AGE AND SEX DISTRIBUTION

Age and sex of the patients as reported for the years 1933 to 1943 and deaths according to age group are shown in Table II which follows:

TABLE II Rocky Mountain Spotted Fever in Iowa—1933-1943 Age and Sex of 122 Reported Cases and Deaths by Age Groups				
Age Group	Male	Female	Total M. & F.	Deaths by Age Group
1-4	7	7	14	5
5-9	13	11	24	4
10-19	17	14	31	1
20-39	13	7	20	3
40-59	19	4	23	5
60 and above	7	8	10	3
	76	46	122	21

It will be observed in the above table that in the total series 76, or 62 per cent, of the patients were males and 46, or 38 per cent, were females. Of 21 fatalities, 10 deaths occurred in patients under twenty and 11 deaths in persons above that age.

SECOND CASE IN DECADE FROM SAME AREA

The sporadic occurrence of spotted fever is illustrated by M. H., a girl eleven years of age, resident of St. Lucas in Fayette County and one of ten cases reported in Iowa in 1943. The case was reported by C. N. Freligh, M.D., of Waucoma, who ten years ago diagnosed and notified the first case of Rocky Mountain spotted fever to the State Department of Health. Strangely enough, both patients had onset of illness in June and were exposed in the same wooded area in Fayette County.

REPORTING OF CASES.

The patient with spotted fever usually has sudden onset with chills, severe headache, high fever, neck stiffness, nausea and vomiting, followed in several days by a macular rash which often begins on the extremities and later becomes generalized. History of tick bite or definite exposure to ticks is the rule.

Physicians are requested to report cases or suspected cases to the District Health Office or to the State Department of Health.

PREVALENCE OF DISEASE				Most Cases Reported From
Disease	Mar. '44	Feb. '44	Mar. '43	
Diphtheria	23	19	8	Cass, Monona, Wood- bury
Scarlet Fever	881	718	367	For the State
Typhoid Fever	4	1	3	Henry, Palo Alto, Polk
Smallpox	14	3	3	Jones, Pottawattamie
Measles	1127	1515	1657	Cedar, Des Moines, Dubuque, Johnson
Whooping Cough	50	86	112	For the State
Brucellosis	24	15	39	For the State
Chickenpox	405	313	469	Black Hawk, Du- buque, Linn
German Measles	34	11	888	Des Moines, Johnson, Story
Influenza	67	150	11	Clayton, Fayette
Meningitis	9	23	0	Johnson
Mumps	231	123	567	Black Hawk, Du- buque, Union
Pneumonia	91	87	91	Black Hawk, Clinton
Polio-myelitis	0	0	1	None
Tuberculosis	78	60	62	For the State
Gonorrhea	154	141	141	For the State
Syphilis	212	229	213	For the State



# The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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DENNIS H. KELLY, Associate Editor.....Des Moines

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## REMARKS ON THE ANNUAL SESSION

Once again a successful convention of the Iowa State Medical Society has been completed. This was the ninety-third in sequence and the third war session. Attendance was surprisingly good considering that a fourth of the Society's members are in military service. A total of 513 members signed registration cards. Last year the number was 546. It was our impression that many fewer service uniforms were in evidence this year, which would tend to account for the difference. There were 54 guests, 68 commercial exhibitors, and 113 members of the Woman's Auxiliary.

In reviewing the various features which enter into the making of an annual convention, we are disposed to consider first of all some of the business transacted by the House of Delegates, since, in our opinion, this body initiated legislation this year which may be of far-reaching significance. Furthermore, the dignified and statesmanlike manner with which these measures were considered and passed reflects great credit upon the delegates and is indicative of their thorough comprehension of the needs of the times. There was every indication that the delegates were fully aware the medical profession should exert leadership in promoting methods by which good medical care could be made available to all people without jeopardizing their financial security in event of catastrophic illnesses. In his presidential address Dr. Woodward defined the issue clearly by stating, "We must have ready the means of giving them (*the people*) medical care at prices they can pay, or someone (*the government*) will do it for us. This is the challenge before the medical profession today."

The House met this challenge by taking two important steps. The first was its action in approv-

ing the principle of prepayment plans for medical care on a nonprofit basis, and its instruction to the Legislative Committee to prepare and work for such legislation as may be necessary for the operation of such plans. Furthermore, it was ordered that a special meeting of the House of Delegates be called within four months to consider the Committee report. The second action taken by the delegates which may well prove of equal importance was their approval of the appointment of a Planning Committee to study the medical needs of the people and physicians in the state of Iowa and the devising of means by which their needs can be met. Thus the ground work has been laid for medicine's answer to some of the criticisms which have been leveled at it in recent years, and which some groups have maintained could only be supplied by the passage of federal government edicts like the Wagner-Murray-Dingell Bill. It will, of course, take time and much hard work to organize and put these programs into operation, but the objectives are worthy and the sacrifice well worth while.

A third matter of major proportions which came before the House for its consideration was the government's Emergency Maternal and Infant Care program. Understandably, physicians are irritated by some of the administrative policies imposed by the Children's Bureau, but with the primary purpose of the program—to supply good medical care to the wives and infants of enlisted men—they are in full sympathy. For the first time in the long history of American medicine, in the EMIC program, a third party (government) came between the physician and his patient, and under such circumstances (war and patriotism) as made it impossible for the physician to effectively remonstrate. The adoption by the House of the following resolution presented by the Committee on Maternal and Child Health is again a testimony to the clear thinking and fair-mindedness of the 1944 delegates:

WHEREAS, the Iowa State Medical Society at its regular annual meeting in 1943, in a spirit of patriotic cooperation, approved participation of its members in the EMIC program developed by the Children's Bureau for the emergency care of the wives and children of certain enlisted personnel of the armed forces, even in spite of the lack of any evidence that the profession of Iowa was not giving adequate care, under existing provisions, to any members of those groups, and

WHEREAS, the regulations subsequently developed by the Children's Bureau for carrying out this program violate established principles of the traditional physician-patient relationship and of governmental assistance to the dependents of servicemen, therefore

**BE IT RESOLVED, that**

1. That Iowa State Medical Society reaffirm its continued sense of obligation to provide reasonable medical care for such dependents and its interest in their welfare, and

2. The Iowa State Medical Society instruct its officers and committees and urge its members to work through available legal and legislative channels for the revision of the Children's Bureau regulations in order to remove the following chief obstacles to the harmonious cooperation of the profession of Iowa with the Children's Bureau in implementing the EMIC program:

a. To cease direct payment to the physicians for services rendered, and to substitute therefor a system of allotment or subsidization, such as prevails in all other phases of governmental assistance, to the end that the third party may be eliminated from the financial consideration involved in the provision of medical care; and

b. To eliminate the regulatory provision which demands that the recipient of such governmental aid accept all or none of the offered financial assistance. In other words, to separate professional attention from hospitalization and other ancillary services so that the individual wife or mother may apply for help in the area where actual need exists, i. e., for hospitalization or medical services, or both, as she may desire; and

c. To make it possible for these wives and children to receive the type of care which they desire, rather than to be forced into a pattern designed by a governmental agency, by removing the restriction that the uniform sum received from the Children's Bureau must be the total compensation paid the physician; and

d. To liberalize the entire program to conform to the traditions of a free and democratic people who object to regimentation of their lives even under the guise of paternalistic benevolence; and

**BE IT FURTHER RESOLVED,** that these constructive suggestions be presented to our Iowa representatives in the Congress of the United States, and be made the basis of our efforts to have the present controversial regulations of the Children's Bureau in connection with the EMIC program revised in the interests of greater harmony between the physicians and the Bureau, and of the maintenance of sound democratic principles.

Mention must also be made in this report of some of the highlights of the scientific program; and especially does the JOURNAL, in behalf of the Iowa State Medical Society, want to take this opportunity to thank its guest speakers for taking the time and making the effort to travel to Des Moines to help in making our convention so much worth while to everyone present. The scientific addresses this year were designed by the Program Committee to present subjects which would be of greatest interest and help to the general practitioner. Sessions were well attended and we be-

lieve the Program Committee's objectives were well received. The addresses of Drs. Judd and Adson on Friday morning were attended by a full house and, in our opinion, those who heard these splendid talks would have felt the convention was eminently worth while if they had constituted the entire program.

If space permitted, we should like to recount the details of the golf tournament, the Broadlawns Clinic, the scientific exhibits, the commercial exhibits, the scientific movies, and the smoker, but there's a limit and this seems to be it.

We are glad you all came; it was nice seeing and meeting you again; and we are sure you have gone back to your work refreshed, informed, and with new enthusiasm for the difficult tasks ahead.

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**RATIONALIZING RESPIRATORY INFECTIONS**

It is a well-known fact that children have infections of the respiratory tract much more frequently than do adults. Not always do we as physicians take the time to explain to anxious parents why this should be so. On the contrary, the problem is too often dismissed with the advice to have the tonsils out, take more vitamins, wear heavier clothing, or some other recommendation, none of which has much of anything to do with the situation.

Let's examine some of the facts and see if arguments cannot be marshaled which will lead to a logical explanation and thus to a better understanding on the part of parents as to why children have frequent colds. Infants, as everyone understands, are fairly well protected against many infections for the first six or eight months of their lives as the result of inheriting maternal immune substances. Breast fed infants probably have their supply of antibodies augmented during the period of nursing. By the end of the first year, or a few months before, this inherited protection is lost, and from then on, with due allowances being made for individual variations, all children are susceptible to a wide variety of infections and, in fact, will develop them if sufficiently exposed. All children are susceptible to the common communicable diseases such as measles, chickenpox, mumps, whooping cough, and the like. Gradually through childhood, as they are exposed, children come down with one after another of these diseases, and so build up their own store of antibody protection. The relationship between exposure and the development of disease is well understood by parents in infections of this type. That a similar situation exists in the matter of virus infections, which are commonly called "colds," "flu," and "grippe," is not so readily grasped. There is, of course, the important difference that one attack of



the recognized communicable diseases usually results in permanent immunity, whereas repeated assaults are necessary in the case of colds and influenza, and even then lasting protection is seldom secured since most adults experience one or two "colds" a year, the effect of which is to supply a "booster" dose of antibodies.

Childhood, then, may logically be looked upon as a period of self-immunization, and just as a child is better off who has successfully passed through an attack of measles, so is a child better off who has successfully completed a respiratory tract infection. In both instances additional antibodies have been stored up. Obviously the reason children between the ages of infancy and nine or ten years have colds frequently is because this is the period of greatest susceptibility. They do not cease having colds when they reach the age of puberty because they have "grown out" of them, but rather because they have finally built up a sufficient antibody protection. Colds in young children at reasonable intervals of, for instance, one or two months should not be looked upon as a liability and an indication of weakness, but rather should be regarded as purposeful, expected, and even desirable. It is nature's way of immunizing the individual, of preparing him for the purposes of adult life. Again from nature's point of view, which is wholly biological, the purpose of adult life is for the female to reproduce and for the male to feed and shelter his family. Indeed, it is doubtful if the human race could ever have emerged without this childhood period of preparation. One's imagination does not need to be taxed unduly to visualize the decreased chances for survival which would exist if adults were as susceptible to colds as children. And the newborn infant without his inherited supply of immune substances would be in a sorry plight indeed.

Some day we shall undoubtedly be as familiar with viruses as we are today with bacteria. When that time comes, methods of immunization against "colds" and influenza will be developed which will be as effective as are our present means of controlling diphtheria, typhoid fever, and many other diseases. Until that time does come, however, children who live in climates like ours are bound to suffer frequent attacks of respiratory tract infections, and the frequency will vary directly with the opportunity offered for exposure to those with infections. While the risk of an occasional resulting serious complication makes it unwise to deliberately expose a child to a "cold" or to measles with the idea of adding to his antibodies, nevertheless it would appear to be equally fallacious to deny a child all association with his companions merely to protect him from colds. Likewise, it

cannot be expected that the removal of the child's tonsils and adenoids will be any more effective in the prevention of colds and influenza than it would be in the prevention of measles or chickenpox. On the contrary, it is altogether likely that these structures play an auxiliary part in the immunization processes through facilitating subclinical infections and resulting antibody absorption. It is granted that tonsils and adenoids may need to be removed, but the indications should be on other grounds than prophylaxis of colds, or even an occasional attack of tonsillitis.

While it may take a little time to explain to parents what is going on when the young child has one cold after another, yet the time spent in making the effort is fully justified in the better insight it will give them in understanding the problem and the greater peace of mind they can enjoy while going through the distressing period.

#### VENEREAL PROBLEM PERSISTS

(EDITOR'S NOTE: *The JOURNAL is glad to cooperate with the Army Service Forces of the Seventh Service Command by publishing the following communication recently received from Colonel Moore. Once previously a similar article was carried in our pages. The seriousness of the problem justifies repeated emphasis.*)

Dear Doctor Woodward, President, Iowa State Medical Society:

We of the Seventh Service Command appear to have reached a stalemate in our fight against the venereal diseases. The venereal rates for the Army in this area showed steady downward trend until the middle of 1943. Since that time we have at best only held our own. Rates for the first two months of 1944 are actually 50 per cent higher than those of the corresponding months of 1943. It appears, then, that we are faced with the probability of a reversal of the favorable trend of recent years.

I am addressing you as the representative of the medical profession of the State of Iowa to enlist even greater aid from that important group in our effort to reduce the toll of venereal disease in our ranks. Lest any physician fail to recognize the opportunities for contribution to this end, the following means are submitted for his consideration.

1. Refuse to treat officers or enlisted personnel of the Army for venereal disease without the specific approval in each case of the soldier's commanding officer. Army regulations require the soldier to report the existence of symptoms of venereal disease. Failure to do so subjects him to the possibility of disciplinary action. The physician who treats the soldier is thus entering into

collusion to circumvent Army regulations. Of considerably more practical significance is the fact that the individual undergoing therapy with sulfonamides or arsenicals unknown to his unit officers may be placed in a position to endanger his life and that of his comrades.

2. The physician should support (and lead) community sentiments against prostitution, open or clandestine, with all the weight of his position as a community leader. We should like to ask him to go further—in his public and private contacts to foster the development of those influences in home, school, church, and elsewhere which will strengthen the moral convictions of our youth and confirm them in continent behavior.

3. Support the extension of the community health services; assume leadership in the effort to establish and maintain an adequate preventive medical program for the community. The physician (as guardian of health) bears a heavy responsibility for leadership and direction in these matters.

4. Recognize a grave responsibility in connection with the treatment of civilians with venereal disease; insist upon *continuity of treatment to cure*, using the services of the health officer, when necessary, to insure this. Share with the health officer a sense of responsibility for contact finding. If a busy practice prevents his active participation in this essential phase of the control effort, the physician may call for the assistance of the health department. Of particular concern to us, of course, are the contacts with military personnel, officer and enlisted, that are frequently obtainable by careful questioning.

5. Sad experience has shown us that present methods in the diagnosis and treatment of gonorrhea, especially in the female, leave much to be desired. Findings of positive bacteriologic evidence of gonorrhea *in the absence of symptoms* have been shown to extend in an appreciable percentage of cases beyond the third month of observation. A disturbingly large number of individuals repeatedly named as the probable source of a gonorrheal infection show *no clinical or bacteriologic evidence* of the disease. Reports occur with alarming frequency which indicate that women under treatment for gonorrhea have continued to infect soldiers. In the face of these convincing demonstrations of the inadequacies of diagnosis, treatment, and control measures, what is our recourse? Several safeguards suggest themselves:

a. A more cautious attitude on the part of the physician toward the individual under suspicion of venereal infection—in particular, a greater reluctance to accept the *negative* laboratory report or *negative* clinical evidence is indicated.

b. Improvements in the thoroughness of physical examination including:

(1) Greater use of laboratory services (dark field) in the detection of the *Treponema pallidum*.

(2) Better technic in obtaining specimens for Gram stain or culture in gonorrhea suspects and the recognition of the necessity for repeated examinations.

(3) Greater use of the consultant and laboratory services of the health department in doubtful cases.

6. Observations on the inadequacy of present methods have implications which the cautious physician will immediately recognize. In particular I should point out:

a. The medical absurdity inherent in the *certificate* of freedom from venereal disease and the dangers involved in the common practice of giving patients (negative) laboratory reports.

b. The responsibility which the physician must assume for *attempting to control the sexual activities* of his patient until the probability of continuing infectiousness has been reduced to a minimum. This will necessitate carefully explaining to each patient the nature of his disease and the responsibility to his family and to society which the diagnosis entails. It may necessitate blunt warning to the careless, the invocation of legal measures against the recalcitrant.

c. The need for larger participation of the private practitioner in the effort to "sell" modern venereal disease *prophylaxis* to the public and especially to his patients.

H. C. MOORE, Colonel, M.C.,  
Surgeon.

P. S. Dr. Pelouze, Assistant Professor of Urology at the University of Pennsylvania, has recently developed many of these points in an arresting article in the March issue of *Venereal Disease Information*. A consideration of his observations and deductions is recommended to all of our profession who would serve intelligently in this vital phase of the war effort.

#### EMERGENCY MATERNITY AND INFANT CARE

The following message from the Surgeons General of the Army and Navy to the physicians of the United States was published in the March 25 issue of *The Journal of the American Medical Association*. Because we believe this message to be of especial interest to all Iowa physicians, we are republishing it in our own columns:

On March 18, 1944, the Emergency Maternity and Infant Care program for the wives and infants of enlisted men in the four lowest pay grades of the armed forces of the United States will have completed its first year. Approximately a quarter of a million wives and infants will have been given care



under the program. More than 90 per cent of this number are wives of enlisted men; nearly 10 per cent are their newborn infants. Medical, nursing and hospital care is being made available in army and navy installations where it does not interfere with the care of the soldier and where it can be given without increasing existing facilities. Whatever other care is available in the place where the wife and infant are living is being given through the civilian authorities.

Physicians the country over are contributing their medical skill to this wartime program generously and in return for moderate recompense. Hospitals the country over have opened their doors to these wives and their infants making available accommodations where their medical needs can be met adequately, though without luxury care. Nurses the country over are helping in the city and rural homes and in the hospitals.

All this is being carried out voluntarily by those who are participating in this program. All this is being done in spite of the great shortage of physicians and nurses serving the civilian population—a shortage caused by the entry into the armed forces of thousands of our physicians and nurses.

This program of maternity and infant care for wives and infants of enlisted men is made possible by grants from the federal government through the Children's Bureau of the Department of Labor and the state health agencies for the purpose of relieving anxiety among the enlisted men as to how the costs of maternity care for their wives, or the costs of medical care for their infants, will be met in their absence from home while in the armed forces—when, for a great majority, their family income has been lowered materially. The program carried out by the state health agencies brings assurance to the enlisted men that their national and state governments are doing whatever is in their power to make care available to their wives and infants, that physicians throughout the country are helping.

The morale in the armed forces is being raised and our fighting men go overseas with greater confidence in the security of their families because of this wartime program.

We who are responsible for the health and medical care of the men in the armed forces are grateful to you—physicians, nurses and hospitals—who are participating in this program of care of the wives and infants of these men. You are sharing with us our normal peacetime responsibility of caring for the families of our men and so are making it possible for us to give our best efforts to the men themselves.

Your contribution is an invaluable aid to us in the prosecution of the war, and we count on your carrying this program forward in the year to come with the same generous spirit you have shown in the past year.

Norman T. Kirk,  
Major General, U. S. Army,  
The Surgeon General.

Ross T. McIntire,  
Vice Admiral, M.C., U.S.N.  
The Surgeon General of the Navy.

### A LITTLE FABLE WITH A MORAL

(EDITOR'S NOTE: *The subject of socialized medicine has been approached from many angles. The following was sent to us by Dr. Edmund G. Zimmerer, Director of the Division of Cancer Control of the State Department of Health, and we believe you will enjoy it.*)

In a pretty county seat town in Iowa there was once a doctor, a general practitioner of exceptional ability. He had for years devoted himself to the service of the community. Day and night he was subject to call. He had brought most of the natives into the world and was not only physician, but counselor and father confessor to many of them.

True, he made a good living, but those who called him on cold winter nights did not begrudge him the comfortable home in which he could enjoy his ease for so few hours or the few weeks he took annually for a rest while he attended a meeting or refresher course to increase his efficiency and bring to his patients the newer discoveries of medical science.

Progressive and civic minded, he inaugurated immunization programs in the school and the town boasted of the low prevalence of communicable disease. He was active in providing a community hospital, even gave a generous contribution. But his pointing out the advantages of such an institution made others just as liberal. And now, everyone is proud of the modern building and its excellent diagnostic and therapeutic equipment.

Folks appreciated old Doc, as he was affectionately called. Every child regarded him as a friend. He was twice elected mayor of the town and for years was on the school board. They trusted him and acknowledged that the community was lucky to have such a good doctor.

And then one night the boys in the tavern got to talking it over. Big Joe, whose numerous brood had been brought into the world by Doc—without ever a penny being paid—and who owed everyone in town, had a grievance. Doc had sent him a bill for \$200.00 with a request for a payment on account. "Just think of it, two hundred dollars for a man like me. For this last baby he was only in the house for half an hour."

Joe failed to mention, if he remembered it, the operation his wife had last summer, or the fact that Doc had come to his house six times in as many years to deliver his wife, or the numerous calls he had made because of measles, mumps, and croup.

None of the boys were too sympathetic actually, but Joe was buying the drinks and they pretended to agree with him. But old Judge Phillips, a perennial and unsuccessful candidate for the State

Legislature, was sitting at a nearby table and joined the conversation.

"Yep," he said, accurately hitting a distant cuspidor with his expectorated quid, "Doc's gettin' pretty damn uppity. Time he was taken down some." And he launched into a recital of the woes of the poor, pointing out that when he was sick week before last (in truth he was only drunk), he couldn't reach Doc by phone all night. No one thought of the five beds in the hospital provided for the poor at Doc's suggestion.

The conversation and beer flowed freely, and before the group adjourned they adopted some resolutions drawn up by the Judge. These were given the town board next morning and read as follows:

WHEREAS, some improvident people don't get Doc's services as promptly and as often as they desire, and

WHEREAS, Doc overcharges his patients (e. g., Joe), and

WHEREAS, the people of this community are entitled to the best medical care obtainable, therefore

BE IT RESOLVED, that the town clerk be placed in charge of medical practice in our town. He shall have the town board to advise him, and

BE IT FURTHER RESOLVED, that Doc be required to make calls when, where, and as directed by the town clerk, and

BE IT FURTHER RESOLVED, that all medical fees be adjusted and collected by the town clerk and paid to Doc either on a salary or per family or per case basis as may be agreed between them, and finally

BE IT RESOLVED, that the town clerk shall take over the management of the Community Hospital, and that admission be made only on his order and that no physicians be permitted to practice therein without the consent and approval of the town clerk.

The town board was busy next morning hearing a group of citizens who were protesting the political control of the police department and insisting that appointments to the department be taken out of politics; but eventually they got around to consideration of the resolutions.

This was an intelligent community. They asked themselves, "Would such a change so improve the health of our community as to warrant risking the loss of our present happy situation?"

They were intelligent I say. How was it settled? What do you think?

#### OFFICERS ELECTED AT ANNUAL SESSION

At the Friday morning session of the House of Delegates of the Iowa State Medical Society Dr. Ransom D. Bernard of Clarion was chosen President-Elect of the Society for the year 1944-1945.

Dr. Fred L. Knowles of Fort Dodge was elected First Vice President and Dr. Edward W. Anderson of Des Moines, Second Vice President. Dr. Walter A. Sternberg of Mt. Pleasant was re-elected Trustee. Dr. Reu L. Barnett of Atlantic, Councilor of the Eleventh District, resigned his position because of ill health and Dr. William S. Reiley of Red Oak was elected to serve the remainder of his term. Dr. James B. Knipe of Armstrong, Councilor of the Third District, and Dr. Clyde A. Boice, Councilor of the Eighth District, were re-elected for another term. Dr. Thomas A. Burcham of Des Moines was elected as Delegate to the American Medical Association and Dr. Thomas F. Thornton was re-elected in that capacity. Dr. George C. Albright of Iowa City and Dr. George Braunlich of Davenport, Alternate Delegates to the American Medical Association, were also re-elected.

Dr. M. C. Hennessy of Council Bluffs was installed as President of the Society for the year 1944-1945, having been made President-Elect at the 1943 session of the Society. He has appointed the following men to serve as Section Chairmen of the Ninety-fourth Annual Session, which is tentatively scheduled to be held in Des Moines April 19 and 20, 1945: Dr. Horace M. Korns of Iowa City, Medical Section; Dr. Gerald V. Caughlan of Council Bluffs, Surgical Section; and Dr. Wayland H. Maloy of Shenandoah, Eye, Ear, Nose and Throat Section.

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#### ANNUAL MEETING OF THE IOWA AND ILLINOIS CENTRAL DISTRICT MEDICAL ASSOCIATION

The annual meeting of the Iowa and Illinois Central District Medical Association will be held Thursday, May 25, at the Inn, Blackhawk State Park, Rock Island, Illinois. The following program will be presented:

- 4:00 p. m. Surgical Treatment of Varicose Veins (illustrated with lantern slides and motion pictures)  
—Arkell M. Vaughn, M.D., Associate Clinical Professor of Surgery, Loyola University School of Medicine, Chicago
- 5:00 p. m. Arteriosclerotic Heart Disease (illustrated with lantern slides)  
—Robert S. Berghoff, M.D., President-Elect of Illinois State Medical Society, and Clinical Professor of Medicine, Loyola University School of Medicine, Chicago
- 6:00 p. m. Dinner, followed by the election of officers
- 8:00 p. m. Address (subject to be announced)  
—Eben J. Carey, M.D., Dean and Professor of Anatomy, Marquette University School of Medicine, Milwaukee

All physicians in good standing in their county society are invited to attend.



# Roster of Iowa Physicians in Military Service

As of April 24, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Treasure Island, Cal.)..Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (APO 230, New York, N. Y.)..Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.)..Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.).....A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.)..Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Trenton, N. J.).....Capt., A.U.S.  
Huston, M. D., Centerville (Camp Bowie, Texas).....Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 726, Seattle, Wash.)..Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (Camp Berkeley, Texas).....Capt., A.U.S.  
Bickley, J. W., Waterloo (APO San Francisco, Cal.) ..... Capt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas).....Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Ottumwa, Iowa).....Lt. Comdr., U.S.N.R.  
Ellyson, C. D., Waterloo (Lido Beach, N. Y.).....Lt., U.S.N.R.  
Ericsson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.)..Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
Ludwick, A. L., Waterloo (APO 813, New York, N. Y.) ..... Major, A.U.S.  
Marquis, F. M., Waterloo (APO 180, Los Angeles, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Banana River, Fla.)..Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.)..Major, A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.) ..... Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Ames, Iowa).....Lt., U.S.N.R.

## Boone County

Brewster, E. S., Boone (Camp Campbell, Ky.).....Major, A.U.S.  
Healy, M. J., Boone  
Shane, R. S., Pilot Mound (Des Moines, Ia.).....Lt. Col., A.U.S.

## Bremer County

Amlie, P. J., Tripoli (Iowa City, Iowa)  
Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.) ..... Major, A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.).....1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.).....Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (APO 9787, New York, N. Y.).....Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.)..Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho).....Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.)..Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.).....Major, A.U.S.

## Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash.)..Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rolf, F. O., Parkersburg (Springfield, Mo.).....1st Lt., A.U.S.

## Cathlamet County

Grinley, A. V., Rockwell City (APO 507, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.) ..... Capt., A.U.S.  
Peek, L. H., Lake City (Jefferson Barracks, Mo.).....Capt., A.U.S.

Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (Camp Carson, Colo.).....1st Lt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Berkeley, Texas)  
Anneberg, W. A., Carroll  
Cochran, J. L., Carroll (Gulftport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Camp Swift, Texas).....Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.).....Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.).....A.U.S.  
Tindall, R. N., Coon Rapids (APO 948, Seattle, Wash.) ..... Major, A.U.S.  
Wyatt, M. R., Manning (Camp Campbell, Ky.).....Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (APO 627, New York, N. Y.) ..... Major, A.U.S.  
Longstreth, C. M., Atlantic (Norman, Okla.) Lt. Comdr., U.S.N.R.  
Needles, R. M., Atlantic (APO 526, New York, N. Y.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.).....Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.).....Lt., U.S.N.R.  
Mosher, M. L., West Branch (APO 560, New York, N. Y.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Fort Sam Houston, Texas) ..... Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.).....Capt., A.U.S.  
Egloff, W. C., Mason City (Chandler, Ariz.).....Capt., A.U.S.  
Flickinger, R. R., Mason City (Tuscaloosa, Ala.).....Capt., A.U.S.  
Hale, A. E., Dougherty (Camp Shelby, Miss.).....Capt., A.U.S.  
Harris, R. H., Mason City (Dyersburg, Tenn.).....Capt., A.U.S.  
Harrison, G. E., Mason City (APO 365, New York, N. Y.) ..... Col., A.U.S.  
Houlahan, J. E., Mason City (APO 839, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 758, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (APO 9379, New York, N. Y.) ..... Capt., A.U.S.  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (Ayer, Mass.).....Capt., A.U.S.

## Cherokee County

Bullock, G. D., Washta (Camp Claiborne, La.).....Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.) Capt., A.U.S.  
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (Stewart Field, N. Y.) ..... Major, A.U.S.  
Murphey, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) ..... Major, A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.)..1st Lt., A.U.S.

## Clay County

Edington, F. D., Spencer (Fort Devens, Mass.).....Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.).....Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Glesne, O. G., Monona (Knoxville, Iowa).....Capt., A.U.S.  
Rhombert, E. B., Guttenberg (Camp Wallace, Texas) ..... Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Portland, Ore.).....Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.).....A.U.S.  
Christensen, E. D., Grand Mound (Iowa City)  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) ..... Capt., A.U.S.  
Hill, D. E., Clinton (Nashville, Tenn.).....Capt., A.U.S.  
King, R. C., Clinton (APO 185, Los Angeles, Cal.)..Capt., A.U.S.

Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Norment, J. E., Clinton (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Riedesel, E. V., Wheatland (Fort Douglas, Utah).....Capt., A.U.S.  
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.).....Capt., A.U.S.  
 Snyder, D. C., De Witt.....Capt., A.U.S.  
 Van Epps, E. F., Clinton (Palm Springs, Cal.).....Capt., A.U.S.  
 Waggoner, C. V., Clinton (San Bruno, Cal.).....Lt. Comdr., U.S.N.R.

#### Crawford County

Fee, C. H., Denison (Dunnellon, Fla.).....Capt., A.U.S.  
 Grau, A. H., Denison, (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Maire, E. J., Vail (Seattle, Wash.).....Capt., A.U.S.  
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.).....Capt., A.U.S.

#### Dallas-Guthrie Counties

Byrnes, A. W., Guthrie Center (Fort Custer, Mich.).....Major, A.U.S.  
 C. S., Adel (Pacific Beach, Wash.).....Lt. U.S.N.R.  
 Margolin, J. M., Perry (Camp Cooke, Cal.).....Capt., A.U.S.  
 McGilvra, R. L., Guthrie Center (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Muhlmann, A. J., Adel (Milwaukee, Wis.).....Capt., A.U.S.  
 Nicoll, C. A., Panora (Camp Campbell, Ky.).....Capt., A.U.S.  
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.).....Capt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.).....Capt., A.U.S.

#### Davis County

Fenton, C. D., Bloomfield (Camp Ellis, Ill.).....Capt., A.U.S.  
 Gilfillan, G. W., Bloomfield (Oceanside, Cal.).....Lt. Comdr., U.S.N.R.

#### Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.).....Capt., A.U.S.

#### Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.).....Capt., A.U.S.  
 Clark, R. E., Manchester (APO 419, New York, N. Y.).....Capt., A.U.S.

#### Des Moines County

Eigenfeld, M. L., Burlington (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.).....Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.).....Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (Fort Lewis, Wash.).....Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.).....Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.).....Capt., A.U.S.  
 Sage, E. C., Burlington.....Lt. Comdr., U.S.N.R.

#### Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Henning, G. G., Milford (Camp Adair, Ore.).....Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.).....Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake (APO New York, N. Y.).....Major, A.U.S.

#### Dubuque County

Beddoes, M. G., Cascade (APO 932, San Francisco, Cal.).....Capt., A.U.S.  
 Conzett, D. C., Dubuque (APO 9639, New York, N. Y.).....Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio).....Capt., A.U.S.  
 Edstrom, Henry, Dubuque (APO 9639, New York, N. Y.).....Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.).....Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas).....1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.).....Major, A.U.S.  
 Langford, W. R., Epworth (APO 948, Seattle, Wash.).....Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.).....Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.).....1st Lt., A.U.S.  
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.).....Capt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.).....Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.).....Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.).....Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.).....1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.).....Major, A.U.S.  
 Smith, C. W., Dubuque (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.).....Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas).....Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Great Lakes, Ill.).....Lt. Comdr., U.S.N.R.

#### Emmet County

Clark, J. P., Estherville (APO New York, N. Y.).....Capt., A.U.S.  
 Collins, L. E., Estherville (Camp Dodge, Iowa).....A.U.S.  
 Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

#### Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.).....Major, A.U.S.  
 Hess, A. M., West Union (Santa Fe, N. Mex.).....Capt., A.U.S.  
 Sulzbach, J. F., Oelwein.....Lt. Comdr., U.S.N.R.  
 Walsh, W. E., Hawkeye (Port Chicago, Cal.).....Lt. Comdr., U.S.N.R.

#### Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.).....Major, A.U.S.  
 Flater, N. C., Floyd (APO 183, Los Angeles, Cal.).....Capt., A.U.S.  
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Mackie, D. G., Charles City (APO 9589, New York, N. Y.).....1st Lt., A.U.S.  
 Miner, J. B., Jr., Charles City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.).....Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.).....1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.).....Lt., U.S.N.R.  
 Walton, S. G., Hampton (APO New York, N. Y.).....Capt., A.U.S.

#### Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.).....Capt., A.U.S.  
 Marrs, W. D., Tabor (Wright Field, Ohio).....Capt., A.U.S.  
 Powell, R. A., Farragut (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Wanamaker, A. R., Hamburg (Los Angeles, Cal.).....Capt., A.U.S.

#### Greene County

Cartwright, F. P., Grand Junction (Geiger Field, Wash.).....Capt., A.U.S.  
 Castles, W. A., Jr., Rippey (APO 958, San Francisco, Cal.).....Major, A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.).....Capt., A.U.S.  
 Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Limburg, J. L., Jr., Jefferson (APO 503, San Francisco, Cal.).....Major, A.U.S.  
 Lohr, P. E., Churdan (San Diego, Cal.).....A.U.S.

#### Grundy County

Rose, J. E., Grundy Center (Des Moines, Iowa).....Lt. Comdr., U.S.N.R.

#### Hamilton County

Buxton, O. C., Webster City (Fort Ord, Cal.).....1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.).....Major, A.U.S.  
 James, D. W., Kamrar (APO 782, New York, N. Y.).....Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 763, New York, N. Y.).....Capt., A.U.S.  
 Mooney, F. P., Jewell (London, England).....Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Barkeley, Texas).....Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.).....Capt., A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.).....Capt., A.U.S.

#### Hancock-Winnebago Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.).....Capt., A.U.S.  
 Dulmes, A. H., Klemme (APO 4778, New York, N. Y.).....Capt., A.U.S.  
 Eller, L. W., Kanawha (APO 302, New York, N. Y.).....Capt., A.U.S.  
 Irish, T. J., Forest City (Farragut, Idaho).....Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Tucson, Ariz.).....Capt., A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.).....Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Mare Island, Cal.).....Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.).....1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.).....Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Ft. Sill, Okla.).....Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.).....1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.).....Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Benning, Ga.).....A.U.S.  
 Burbridge, G. E., Logan (APO 511, New York, N. Y.).....Major, A.U.S.  
 Byrnes, C. W., Dunlap (APO Seattle, Wash.).....Major, A.U.S.  
 Heise, C. A., Jr., Missouri Valley.....Major, A.U.S.  
 Tamisiea, F. X., Missouri Valley (Jefferson Barracks, Mo.).....Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.).....Major, A.U.S.  
 Dwankowski, Carl, Mt. Pleasant (APO 505, New York, N. Y.).....Capt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (Fort McPherson, Ga.).....Capt., A.U.S.



Hartley, B. D., Mount Pleasant (Yuma, Ariz.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (APO 9648, New York,  
 N. Y.) .....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco,  
 Cal.) .....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 15195, San Francisco,  
 Cal.) .....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Fran-  
 cisco, Cal.) .....Capt., A.U.S.  
 Martin, J. W., Holstein (Montgomery, Ala.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York,  
 N. Y.) .....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

#### Jefferson County

Castell, J. W., Fairfield (APO 9907, New York,  
 N. Y.) .....Capt., A.U.S.  
 Gittler, Ludwig, Fairfield (APO 1001, New York,  
 N. Y.) .....Lt. Col., A.U.S.  
 Graber, H. E., Fairfield (Carlisle Barracks, Penn.) Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

#### Johnson County

Agnew, J. W., Iowa City (Trinidad, Colo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (Clinton, Iowa).....Major, A.U.S.  
 Boiler, W. F., Iowa City (Fort Leonard Wood,  
 Mo.) .....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco,  
 Cal.) .....Lt. Col., A.U.S.  
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (El Toro, Cal.).....Lt., U.S.N.R.  
 Cooper, W. K., Iowa City (Randolph Field, Texas).....Capt., A.U.S.  
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Key West, Fla.).....Lt., U.S.N.R.  
 Dorner, R. A., Iowa City (APO 534, New York,  
 N. Y.) .....Capt., A.U.S.  
 Elmquist, H. S., Iowa City (Fleet PO, San Francisco,  
 Cal.) .....Lt., U.S.N.R.  
 Emmons, H. S., Iowa City (Abilene, Texas).....Capt., A.U.S.  
 Flax, Ellis, Iowa City (Edwight, W. Va.).....Capt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourn, A. S., Iowa City (APO 34, New York,  
 N. Y.) .....Lt. Col., A.U.S.  
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York,  
 N. Y.) .....Major, A.U.S.  
 Hardin, R. C., Iowa City (APO 508, New York,  
 N. Y.) .....Major, A.U.S.  
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (Camp Forrest, Tenn.).....Capt., A.U.S.  
 Irwin, R. L., Iowa City (Fleet PO, San Francisco,  
 Cal.) .....Comdr., U.S.N.R.  
 January, L. E., Iowa City (McCook, Nebr.).....Capt., A.U.S.  
 Kanealy, J. F., Iowa City.....Capt., A.U.S.  
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco,  
 Cal.) .....Lt. (jg), U.S.N.R.  
 Longwell, F. H., Iowa City (APO 515, New York,  
 N. Y.) .....Major, A.U.S.  
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagyfy, S. F., Iowa City (Memphis, Tenn.).....Lt. (jg), U.S.N.R.  
 Newman, R. W., Iowa City (Fleet PO, New York,  
 N. Y.) .....Lt., U.S.N.R.  
 Parkin, G. L., Iowa City (Mountain Home, Idaho) 1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 1001, New York,  
 N. Y.) .....Lt. Col., A.U.S.  
 Petersen, V. W., Iowa City (APO 689, New York,  
 N. Y.) .....Col., A.U.S.  
 Sells, R. L., Jr., Iowa City (South San Francisco,  
 Cal.) .....Capt., A.U.S.  
 Smith, H. F., Iowa City (New York, N. Y.) Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.) 1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.  
 Stump, R. B., Iowa City (Fort Leonard Wood,  
 Mo.) .....Capt., A.U.S.  
 Titus, E. L., Iowa City (Fort Banks, Mass.).....Col., A.U.S.  
 Trappel, T. J., Iowa City (Patterson Field, Ohio) 1st Lt., A.U.S.  
 Trussell, R. E., Iowa City (Ft. McPherson, Ga.).....1st Lt., A.U.S.  
 Vest, W. M., Iowa City (APO 928, San Francisco,  
 Cal.) .....Capt., A.U.S.

Ward, R. H., Iowa City (Cherry Point,  
 N. C.) .....Lt. Comdr., U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 923, San Francisco,  
 Cal.) .....1st Lt., A.U.S.  
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

#### Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.) 1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.) Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.  
 Brintnall, E. S., Iowa City (Colorado Springs,  
 Colo.) .....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.) 1st Lt., A.U.S.  
 Connole, J. F., Iowa City (Camp Bowie, Texas) 1st Lt., A.U.S.  
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.) 1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.) 1st Lt., A.U.S.  
 Donnelly, B. A., Iowa City (APO San Francisco,  
 Cal.) .....1st Lt., A.U.S.  
 Ehrenhaft, J. L., Iowa City (APO New York,  
 N. Y.) .....1st Lt., A.U.S.  
 Englerth, F. L., Iowa City (APO San Francisco,  
 Cal.) .....Capt., A.U.S.  
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman, A. L., Iowa City (Palm Springs, Cal.) 1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.) .....1st Lt., A.U.S.  
 Harms, G. E., Iowa City (Carlisle Barracks,  
 Penn.) .....1st Lt., A.U.S.  
 Hendricks, A. B., Iowa City (Farragut, Idaho) .....Lt., U.S.N.  
 Hovis, Wm., Iowa City (San Diego, Cal.) .....Lt. (jg), U.S.N.R.  
 Ide, L. W., Iowa City (Fort Warren, Wyo.) .....1st Lt., A.U.S.  
 Jacobs, C. A., Iowa City (APO New York, N. Y.) Major, A.U.S.  
 Kaplan, Nathan, Iowa City (Carlisle Bar-  
 racks, Pa.) .....1st Lt., A.U.S.  
 Kell, P. G., Iowa City (Sioux City, Iowa) .....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Treasure Island,  
 Cal.) .....Lt. (jg), U.S.N.R.  
 Keleher, M. F., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.) .....Capt., A.U.S.  
 Kugler, F. E., Iowa City (Fort Warren, Wyo.) .....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.) .....1st Lt., A.U.S.  
 McCann, J. P., Iowa City (Carlisle Barracks,  
 Penn.) .....1st Lt., A.U.S.  
 McQuiston, W. O., Iowa City (APO San Francisco,  
 Cal.) .....Capt., A.U.S.  
 Moen, B. H., Iowa City.....Capt., A.U.S.  
 Moon, R. E., Iowa City (APO New York, N. Y.) 1st Lt., A.U.S.  
 Odell, Lester, Iowa City (Alameda, Cal.) .....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.) 1st Lt., A.U.S.  
 Pulliam, R. L., Iowa City (APO 9826, New York,  
 N. Y.) .....Major, A.U.S.  
 Randall, C. G., Iowa City.....Major, A.U.S.  
 Randall, R. G., Iowa City (Waterloo, Iowa) .....Capt., A.U.S.  
 Rosenbusch, M., Iowa City (Fort Leonard Wood,  
 Mo.) .....1st Lt., A.U.S.  
 Russin, L. A., Iowa City (Fort Blanding, Fla.) .....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.) .....Capt., A.U.S.  
 Sawtelle, W. W., Iowa City .....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks,  
 Penn.) .....1st Lt., A.U.S.  
 Shand, J. A., Iowa City (Carlisle Barracks,  
 Penn.) .....1st Lt., A.U.S.  
 Shapiro, S. I., Iowa City.....Capt., A.U.S.  
 Simpson, F. E., Iowa City (Camp Grant, Ill.) .....A.U.S.  
 Skewis, J. E., Iowa City (Corona, Cal.) .....Lt., U.S.N.R.  
 Skouge, O. T., Iowa City.....Capt., A.U.S.  
 Towle, R. A., Iowa City (Fleet PO, San Francisco,  
 Cal.) .....Lt., U.S.N.R.  
 Warren, R. F., Iowa City (Santa Barbara, Cal.) .....A.U.S.  
 Watters, V. G., Iowa City (Fort Leonard Wood,  
 Mo.) .....1st Lt., A.U.S.  
 Wicks, W. J., Iowa City (Camp Crowder, Mo.) .....Capt., A.U.S.  
 Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.  
 Willumsen, H. C., Iowa City (Chico, Cal.) .....Capt., A.U.S.  
 Wolkin, J., Iowa City (San Antonio, Texas) .....Capt., A.U.S.  
 Yetter, W. L., Iowa City (APO New York, N. Y.) .....Capt., A.U.S.  
 Zahrt, N. E., Iowa City (Miami Beach, Fla.) .....1st Lt., A.U.S.  
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.) 1st Lt., A.U.S.

#### Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.  
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.  
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.  
 Graham, J. A., Gibson (Needles, Cal.) .....1st Lt., A.U.S.  
 Montgomery, G. E., Keota (Antioch, Cal.) .....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.).....Capt., A.U.S.

#### Kossuth County

Clapsaddle, D. W., Burt (APO 9921, New York,  
 N. Y.) .....Capt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.) Lt. Comdr., U.S.N.R.  
 Williams, R. L., Lakota (San Francisco,  
 Cal.) .....Lt. Comdr., U.S.N.R.

#### Lee County

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (APO 726, Seattle, Wash.).....Capt., A.U.S.  
 Cooper, R. E., Keokuk (APO 9641, San Francisco,  
 Cal.) .....Capt., A.U.S.  
 Johnstone, A. A., Keokuk (Camp Fannin, Texas).....Col., A.U.S.

McKee, T. L., Keokuk (APO 922, San Francisco, Cal.) ..... Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) ..... Major, A.U.S.  
 Rankin, J. R., Keokuk (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) ..... Capt., A.U.S.  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) ..... Capt., A.U.S.  
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) ..... Major, A.U.S.  
 Berney, P. W., Cedar Rapids (San Francisco, Cal.) ..... Capt., A.U.S.  
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.) ..... Capt., A.U.S.  
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) ..... Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) ..... A.U.S.  
 Courter, W. O., Springville (APO 464, New York, N. Y.) ..... Major, A.U.S.  
 Crew, P. L., Marion (Monroe, La.) ..... Capt., A.U.S.  
 Dunn, F. C., Cedar Rapids (Kearney, Nebr.) ..... Major, A.U.S.  
 Halpin, L. J., Cedar Rapids (Atlanta, Ga.) ..... Major, A.U.S.  
 Hecker, J. T., Cedar Rapids (Oxnard, Cal.) ..... 1st Lt., A.U.S.  
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Keith, J. J., Marion (Palo Alto, Cal.) ..... Major, A.U.S.  
 Kieck, E. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Kruckenber, W. G., Mount Vernon (Portsmouth, Va.) ..... Lt., U.S.N.R.  
 Locher, R. C., Cedar Rapids (Camp Swift, Texas) ..... Major, A.U.S.  
 †MacDougall, R. F., Cedar Rapids (APO 9057, New York, N. Y.) ..... Capt., A.U.S.  
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) ..... Major, A.U.S.  
 McQuiston, J. S., Cedar Rapids (Sallina, Kan.) ..... Major, A.U.S.  
 Meffert, C. B., Cedar Rapids (Nashville, Tenn.) ..... Major, A.U.S.  
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) ..... 1st Lt., A.U.S.  
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) ..... Major, A.U.S.  
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Lt. Comdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (Camp Blanding, Fla.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO 957, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 34, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) ..... Lt. Comdr., U.S.N.

**Louisa County**

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Lucas County**

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

**Lyon County**

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Capt., A.U.S.  
 †Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 700, New York, N. Y.) ..... Capt., A.U.S.

**Madison County**

Boden, H. N., Truro (Fresno, Cal.) ..... Capt., A.U.S.  
 Chesnut, P. F., Winterset (Salem, Ore.) ..... Lt. Col., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.

**Mahaska County**

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) ..... Major, A.U.S.  
 Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Mare Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) ..... 1st Lt., A.U.S.  
 Lemon, K. M., Oskaloosa ..... 1st Lt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) ..... Capt., A.U.S.

**Marion County**

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) ..... Major, A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.

Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Bastrop, Texas) ..... 1st Lt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

**Marshall County**

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) ..... Major, A.U.S.  
 Meyer, M. G., Marshalltown (Ft. Geo. Meade, Md.) ..... Major, A.U.S.  
 Noonan, J. J., Marshalltown (APO 928, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 730, Seattle, Wash.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (APO 12726, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (Portland, Ore.) ..... Capt., A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) ..... 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (Fort Riley, Kan.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Mills County**

DeYoung, W. A., Glenwood (APO 813, New York, N. Y.) ..... Capt., A.U.S.  
 Magaret, E. C., Glenwood (APO 462, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 230, New York, N. Y.) ..... Capt., A.U.S.

**Mitchell County**

Culbertson, R. A., St. Ansgar (Fort Knox, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (Camp Mackall, N. C.) ..... Major, A.U.S.  
 Owen, W. E., Osage (San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

**Monona County**

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... A.U.S.  
 Anderson, S. N., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 928, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gaukel, L. A., Onawa (Vancouver, Wash.) ..... Capt., A.U.S.  
 †Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Rosecrans, Cal.) ..... A.U.S.  
 Wainwright, M. T., Mapleton (APO 939, Seattle, Wash.) ..... A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

**Monroe County**

Gilliland, C. H., Albia (Quonset Point, R. I.) ..... Lt., U.S.N.R.  
 Heimann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Capt., A.U.S.  
 Smith, R. A., Albia (New Cumberland, Pa.) ..... Capt., A.U.S.

**Montgomery County**

Bastron, H. C., Red Oak (APO 953, San Francisco, Cal.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) ..... Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

**Muscatine County**

Ady, A. E., West Liberty (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) ..... Capt., A.U.S.  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 678, New York, N. Y.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO, Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) ..... Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Lt. Col., A.U.S.

**O'Brien County**

Getty, E. B., Primghar (APO 117, New York, N. Y.) ..... Capt., A.U.S.  
 Hayne, W. W., Paulina (APO 638, New York, N. Y.) ..... Capt., A.U.S.  
 Moen, S. T., Hartley (APO 3492, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

**Osceola County**

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

**Page County**

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Bossingham, E. N., Clarinda (APO 923, San Francisco, Cal.) ..... Capt., A.U.S.



Bunch, H. McK., Shenandoah (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 †Burdick, F. D., Shenandoah (APO, New York, N. Y.) ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (APO 928, San Francisco, Cal.) ..... Major, A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) ..... Capt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

#### Palo Alto County

Davey, W. P., Emmetsburg (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.

#### Plymouth County

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... Capt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

#### Pocahontas County

Blair, F. L., Jr., Fonda (San Antonio, Texas) ..... Lt., U.S.N.R.  
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.

#### Polk County

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Capt., A.U.S.  
 Bates, M. T., Des Moines (Fleet PO, New York, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Riverside, Cal.) ..... Capt., A.U.S.  
 Brown, A. W., Des Moines (Rochester, Minn.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (Fort Bliss, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 †Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef-Offizierlager XXI B, Deutschland [Alleman]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Vulcan, Alberta, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (Concordia, Kan.) ..... 1st Lt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
 Connell, J. R., Des Moines ..... Capt., A.U.S.  
 Corn, H. H., Des Moines (St. Louis, Mo.) ..... Capt., A.U.S.  
 Coughlan, D. W., Des Moines (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) ..... Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) ..... 1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Fort Snelling, Minn.) ..... 1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 628, New York, N. Y.) ..... Major, A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas) ..... Capt., A.U.S.  
 Ellis, H. G., Des Moines (Kearney, Nebr.) ..... Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas) ..... Major, A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Fracasse, John, Des Moines ..... 1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines ..... Lt., A.U.S.  
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) ..... Major, A.U.S.  
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.) ..... Capt., A.U.S.  
 Goldberg, Louie, Des Moines (Greensboro, N. C.) ..... Capt., A.U.S.  
 Gordon, A. M., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Gurau, H. H., Des Moines (Santa Ana, Cal.) ..... 1st Lt., A.U.S.  
 Haines, D. J., Des Moines (APO 913, San Francisco, Cal.) ..... Capt., A.U.S.  
 Harris, D. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.) ..... 1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 James, A. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.) ..... Lt. Col., A.U.S.

Kast, D. H., Des Moines (Los Angeles, Cal.) ..... Capt., A.U.S.  
 Kelley, E. J., Des Moines (Marshall, Mo.) ..... Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.) ..... Lt. Col., A.U.S.  
 Klocksiem, H. L., Des Moines ..... Lt. (jg), U.S.N.R.  
 Kotke, E. E., Des Moines (Temple, Texas) ..... Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.) ..... 1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Lederman, James, Des Moines ..... 1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.) ..... Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (Jackson, Miss.) ..... 1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) ..... 1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Chicago, Ill.) ..... Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.) ..... 1st Lt., A.U.S.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa) ..... Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (Ft. Sam Houston, Tex.) ..... Capt., A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines ..... 1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) ..... Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Morden, R. P., Des Moines (APO 4570, New York, N. Y.) ..... Capt., A.U.S.  
 Mumma, C. S., Des Moines (Los Angeles, Cal.) ..... Major, A.U.S.  
 Murphy, J. H., Des Moines (Barstowe, Cal.) ..... Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.) ..... Major, A.U.S.  
 Noun, L. J., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Noun, M. H., Des Moines (APO 514, New York, N. Y.) ..... Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.) ..... 1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.) ..... Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 9301, New York, N. Y.) ..... Capt., A.U.S.  
 Penn, E. C., West Des Moines (APO 4062, New York, N. Y.) ..... Capt., A.U.S.  
 Pfeiffer, E. P., Des Moines (Springfield, Mo.) ..... Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corona, Cal.) ..... Lt., U.S.N.R.  
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Powell, L. D., Des Moines (Long Beach, Cal.) ..... Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Priestley, J. B., Des Moines (Camp Phillips, Kan.) ..... Major, A.U.S.  
 Purdy, W. O., Des Moines (Camp Howze, Texas) ..... Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.) ..... Major, A.U.S.  
 Robinson, V. C., Des Moines (Tampa, Fla.) ..... Capt., A.U.S.  
 Rotkow, M. J., Des Moines (Louisville, Ky.) ..... Capt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.  
 Shepherd, L. K., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Shifer, H. K., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.) ..... 1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (New Orleans, La.) ..... 1st Lt., U.S.P.H.S.  
 Smead, H. H., Des Moines (APO 595, New York, N. Y.) ..... Capt., A.U.S.  
 Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Smith, R. T., Des Moines (APO 9543, San Francisco, Cal.) ..... Capt., A.U.S.  
 Snodgrass, R. W., Des Moines (Fort Rosecrans, Cal.) ..... Capt., A.U.S.  
 Snyder, G. E., Grimes (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
 Sohm, H. A., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sorensen, R. M., Des Moines (Topeka, Kan.) ..... Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Stearns, A. B., Des Moines (Denver, Colo.) ..... Major, A.U.S.  
 Stickler, Robert, Des Moines (Fort Benning, Ga.) ..... Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.) ..... Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (APO 403, New York, N. Y.) ..... Capt., A.U.S.  
 Touben, A. A., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas) ..... Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.) ..... 1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (APO 515, New York, N. Y.) ..... Capt., A.U.S.  
 Vaubel, E. K., Des Moines (Silver Spring, Md.) ..... Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.) ..... 1st Lt., A.U.S.  
 Willett, W. M., Des Moines (APO 873, New York, N. Y.) ..... Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Zaichy, A. C., Des Moines (Camp Cooke, Cal.) ..... Capt., A.U.S.

**Pottawattamie County**

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.) ..... Major, A.U.S.  
 Cogley, J. P., Council Bluffs (APO 322, Unit I, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Olathe, Kan.) ..... Lt. Comdr., U.S.N.R.  
 Floersch, E. B., Council Bluffs (Bremerton, Wash.) ..... Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Jensen, A. L., Council Bluffs (Temple, Texas) ..... Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.) ..... Lt., U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.) ..... Capt., A.U.S.  
 Lambert, E. M., Council Bluffs (APO 9907, New York, N. Y.) ..... Capt., A.U.S.  
 Maiden, S. D., Council Bluffs (Camp Hood, Texas) ..... Major, A.U.S.  
 Martin, L. R., Council Bluffs (APO 923, San Francisco, Cal.) ..... Capt., A.U.S.  
 Moskovitz, J. M., Council Bluffs (Camp Lockett, Cal.) ..... Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.) ..... Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (APO 479, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.) ..... Capt., A.U.S.  
 Treyner, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (APO 552, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.) ..... A.U.S.  
 Wurl, O. A., Council Bluffs (APO 871, New York, N. Y.) ..... Capt., A.U.S.

**Poweshiek County**

Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.) ..... Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 Korfmacher, E. S., Grinnell (San Francisco, Cal.) ..... Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco, Cal.) ..... Capt., A.U.S.  
 Parish, J. R., Grinnell (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Ringgold County**

Seaman, C. L., Mount Ayr (Fort Smith, Ark.) ..... Major, A.U.S.

**Sac County**

Bassett, G. H., Sac City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 1001, New York, N. Y.) ..... Capt., A.U.S.  
 Evans, W. I., Sac City (APO 9212, New York, N. Y.) ..... Capt., A.U.S.  
 Klockslem, R. G., Odebolt (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.) ..... Major, A.U.S.

**Scott County**

Baker, R. W., Davenport (APO 511, New York, N. Y.) ..... Capt., A.U.S.  
 Balzer, W. J., Davenport (APO 939, Seattle, Wash.) ..... Capt., A.U.S.  
 Bishop, J. F., Davenport (APO 729, Seattle, Wash.) ..... Capt., A.U.S.  
 Block, L. A., Davenport (Clinton, Iowa) ..... Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York, N. Y.) ..... Capt., A.U.S.  
 Boyer, U. S., Davenport (Rock Island, Ill.) ..... Lt. Col., A.U.S.  
 Brown, D. H., Davenport (Waycross, Ga.) ..... Capt., A.U.S.  
 Brown, M. J., Davenport (Camp Hale, Colo.) ..... Major, A.U.S.  
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.) ..... Capt., A.U.S.  
 Coleman, Tom, Davenport (Camp Stewart, Ga.) ..... 1st Lt., A.U.S.  
 Cummins, G. M., Jr., Davenport ..... 1st Lt., A.U.S.  
 Decker, C. E., Davenport (Oklahoma City, Okla.) ..... 1st Lt., A.U.S.  
 Evans, H. J., Davenport (Ft. Bragg, N. C.) ..... Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.) ..... Capt., A.U.S.  
 Goenne, Wm., Jr., Davenport (Camp White, Ore.) ..... 1st Lt., A.U.S.  
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.) ..... Major, A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Berkeley, Texas) ..... Major, A.U.S.  
 Kimberly, L. W., Davenport (New Orleans, La.) ..... Capt., A.U.S.  
 Krakauer, Max, Davenport (Camp Breckenridge, Ky.) ..... Capt., A.U.S.  
 LaDage, L. H., Davenport (APO 180, Los Angeles, Cal.) ..... Major, A.U.S.

Lorfeld, G. W., Davenport (Columbus, Ohio) ..... Capt., A.U.S.  
 Marker, J. I., Davenport (Ft. Des Moines, Iowa) ..... Col., M.R.C.  
 McMeans, T. W., Davenport (APO 514, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Neufeld, R. J., Davenport (APO 9575, San Francisco, Cal.) ..... Capt., A.U.S.  
 Perkins, R. M., Davenport (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.  
 Sheeler, I. H., Davenport (Camp Crowder, Mo.) ..... Capt., A.U.S.  
 Shorey, J. R., Davenport (Denver, Colo.) ..... Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 514, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (APO 9788, San Francisco, Cal.) ..... Capt., A.U.S.  
 Weinberg, H. B., Davenport (Fort Benning, Ga.) ..... Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.) ..... Capt., A.U.S.

**Shelby County**

Bisgard, C. V., Harlan (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.) ..... Capt., A.U.S.  
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Sioux County**

Gleysteen, R. R., Alton (Silver Spring, Md.) ..... Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (APO 572, New York, N. Y.) ..... Capt., A.U.S.  
 Larsen, M. O., Hawarden (Camp Bowie, Texas) ..... Major, A.U.S.  
 Oelrich, A. M., Hull (Biloxi, Miss.) ..... 1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Biloxi, Miss.) ..... 1st Lt., A.U.S.

**Story County**

Conner, J. D., Nevada (APO 708, San Francisco, Cal.) ..... Capt., A.U.S.  
 Fellows, J. G., Ames (Camp Breckenridge, Ky.) ..... Major, A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.) ..... Lt., U.S.N.R.  
 McFarland, J. E., Ames (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (Del Valle, Texas) ..... Capt., A.U.S.  
 Sperow, W. B., Nevada (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamogordo, N. Mex.) ..... Major, A.U.S.

**Tama County**

Bezman, H. S., Traer (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Boller, G. C., Traer (Camp Bowie, Texas) ..... Lt. Comdr., U.S.N.R.  
 Dobias, S. G., Chelsea (APO 937, Seattle, Washington) ..... Lt., U.S.N.R.  
 Havlik, A. J., Tama (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.) ..... Lt., U.S.N.R.  
 Standefer, J. M., Tama (Fort Hueneme, Cal.) ..... Lt., U.S.N.R.

**Taylor County**

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.) ..... 1st Lt., A.U.S.

**Union County**

Beatty, H. G., Creston (Camp Berkeley, Tex.) ..... 1st Lt., A.U.S.  
 Paragas, M. R., Creston (APO 9633, San Francisco, Cal.) ..... Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.) ..... Capt., A.U.S.

**Wapello County**

Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO New York, N. Y.) ..... Major, A.U.S.  
 Gillilan, C. D. N., Eldon (Battle Creek, Mich.) ..... Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (Camp Butner, N. C.) ..... Capt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa ..... Capt., A.U.S.  
 Prelwitz, L. H., Ottumwa (Santa Monica, Cal.) ..... Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas) ..... Lt. Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.) ..... Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Wolfe, W. C., Ottumwa (San Diego, Cal.) ..... Lt., U.S.N.R.

**Warren County**

Fullgrabe, E. A., Indianola (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.) ..... Capt., A.U.S.  
 Shaw, E. E., Indianola (APO 834, New Orleans, La.) ..... Capt., A.U.S.  
 Trueblood, C. A., Indianola (APO 730, Seattle, Wash.) ..... Capt., A.U.S.

**Washington County**

Boice, C. L., Washington (Atlantic City, N. J.) ..... Lt., U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 Mast, T. M., Washington (Portland, Ore.) ..... Lt., U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.) ..... 1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ware, S. C., Kalona (APO 15275, New York, N. Y.) ..... Capt., A.U.S.



**Wayne County**

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) .....Capt., A.U.S.

**Webster County**

Baker, C. J., Fort Dodge (APO New York, N. Y.)...Capt., A.U.S.  
 Burch, E. S., Dayton (APO 709, San Francisco, Cal.) .....Capt., A.U.S.  
 Burselon, M. W., Fort Dodge (Monterey, Cal.).....1st Lt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa) .....Major, A.U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.) .....Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.)...Lt. Comdr., U.S.N.R.  
 Joyner, N. M., Fort Dodge (Brooklyn Field, Ala.) .....Lt. Comdr., U.S.N.R.  
 Kluever, H. C., Fort Dodge (Pensacola, Fla.)...Lt. Comdr., U.S.N.R.  
 Larsen, H. T., Fort Dodge (Pensacola, Fla.).....Lt., U.S.N.R.  
 Shrader, J. C., Fort Dodge (APO 181, Los Angeles, Cal.) .....Major, A.U.S.  
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) .....Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) .....Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.)...Capt., A.U.S.

**Winneshiek County**

Fritchen, A. F., Decorah (Treasure Island, Cal.) .....Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) .....Major, A.U.S.  
 Howard, W. H., Decorah  
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Cal.).....Lt. (jg), U.S.N.R.  
 Van Besien, G. J., Decorah (APO New York, N. Y.) .....1st Lt., A.U.S.

**Woodbury County**

Bettler, P. L., Sioux City (APO 962, New York, N. Y.) .....Major, A.U.S.  
 Blackstone, M. A., Sioux City (Camp Stoneman, Cal.) .....Capt., A.U.S.  
 Boe, Henry, Sioux City (APO 709, San Francisco, Cal.) .....Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 †Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) .....Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) .....Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa).....1st Lt., A.U.S.  
 Down, H. I., Sioux City (Ft. Devens, Mass.).....Lt. Col., A.U.S.  
 Elson, V. J., Danbury (APO 9875, New York, N. Y.) .....Capt., A.U.S.  
 Frank, L. J., Sioux City (Vallejo, Cal.) .....Lt. Comdr., U.S.N.R.  
 Graham, J. W., Sioux City (San Diego, Cal.) Lt. Comdr., U.S.N.R.  
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) .....Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Peterson Field, Colo.)...Capt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.).....Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.).....Major, A.U.S.  
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) .....Capt., A.U.S.  
 Knott, P. D., Sioux City (Camp Dix, N. J.) .....Capt., A.U.S.  
 Knott, R. C., Sioux City (Fort Bragg, N. C.).....Major, A.U.S.  
 Krigten, W. M., Sioux City (Springfield, Mo.)...Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (Santa Fe, N. Mex.).....Major, A.U.S.  
 Martin, R. F., Sioux City (APO 652, New York, N. Y.) .....Capt., A.U.S.  
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) .....1st Lt., A.U.S.  
 McCuiston, H. M., Sioux City (APO 813, New York, N. Y.) .....Capt., A.U.S.  
 Mugan, R. C., Sioux City (APO 528, New York, N. Y.) .....Capt., A.U.S.  
 Osincup, P. W., Sioux City (APO 9101, New York, N. Y.) .....Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.) Capt., A.U.S.  
 Reeder, J. E., Jr., Sioux City (APO 9648, New York, N. Y.) .....Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.) .....Capt., A.U.S.  
 Schwartz, J. W., Sioux City (Ft. Leavenworth, Kan.) .....Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Ephrata, Wash.) .....Capt., A.U.S.

**Worth County**

Westly, G. S., Manly (APO 4580, San Francisco, Cal.) .....Major, A.U.S.

**Wright County**

Aagesen, C. A., Dows (Greenville, Pa.) .....Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.).....Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Phoenix, Ariz.) .....Lt., U.S.N.R.  
 Gorrell, R. L., Clarion (Buffalo, N. Y.) .....Lt., U.S.N.R.  
 Leinbach, S. P., Belmont (Farragut Air Base, Idaho)  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) .....Capt., A.U.S.

**LIBERALIZATION OF NAVY REQUIREMENTS FOR PHYSICIANS**

The Bureau of Naval Personnel has authorized this office to consider applicants for specialist medical officers whose ages range up to fifty-five years. We have been further authorized to consider applicants who are in all respects professionally qualified for appointment to appropriate rank in Class MC-VS of the United States Naval Reserve whose physical qualifications would limit their availability for duty to shore establishments only. All such applicants must, of course, meet the usual professional requirements which are:

Applicant must be a graduate from an accredited medical school with at least one year of internship; must be duly licensed to practice medicine and a member of a local or state medical society, and recent practical experience in a specialty, or one year in general practice. Membership of a specialty board is desired but not required.

The relaxation of the age and physical requirements for medical billets does not, of course, mean that unlimited physical disabilities will be considered. Applicants who do not meet the physical requirements but are in other respects qualified will, if the physical disqualifications would not interfere with their ability to perform shore duty, be forwarded to the Bureau of Naval Personnel for further consideration. If approved, such applicants will be appointed to appropriate rank and assigned to Naval Dispensaries, Navy Yards, Naval Training Schools, and to the Navy and Marine Corps Recruiting Services. Their assignment to these activities will make available for sea and foreign duty physically and otherwise qualified medical officers now detailed to these assignments.

The urgent need for additional medical officers at sea and advance bases has made this action on the part of the Bureau necessary. It is, of course, essential before any applicant can be considered that he be certified as available by the Procurement and Assignment Service for physicians. Interested applicants may make application or secure further information at the office of Naval Officer Procurement, 208 Old Federal Building, Des Moines, or at the Branch Office of Naval Officer Procurement, 1005 W. O. W. Building, Omaha, Nebraska.

**CHANGE OF ADDRESS**

Help your central office to maintain an accurate mailing list.  
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 505 Bankers Trust Bldg.,  
 Des Moines 9, Iowa.

(\*) Reported missing in action.

(†) Reported killed in action.

(‡) Reported prisoner of war.

# WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

*President*—MRS. JAY C. DECKER, Sioux City

*President-Elect*—MRS. SOREN S. WESTLY, Manly

*Secretary*—MRS. ALLEN C. STARRY, Sioux City

*Treasurer*—MRS. ARTHUR E. MERKEL, Des Moines

## STATE OFFICERS ELECTED AT ANNUAL MEETING

At the Friday afternoon meeting of the Woman's Auxiliary to the Iowa State Medical Society Mrs. Soren S. Westly of Manly was chosen President-Elect for the year 1944-45. Mrs. Jay C. Decker of Sioux City was installed as President, succeeding Mrs. William S. Reiley of Red Oak who was named a director.

Other officers elected at the meeting are: Mrs. Allan G. Felter of Van Meter, First Vice President; Mrs. Henry M. Pahlas of Dubuque, Second Vice President; Mrs. Ivan K. Sayre of St. Charles, Third Vice President; Mrs. Allen C. Starry of Sioux City, Secretary; and Mrs. Arthur E. Merkel of Des Moines, Treasurer.

## MEETING OF SIOUX MES-DAMES

The Sioux Mes-Dames of Sioux City met for their annual March tea in the home of Mrs. Roy E. Crowder. We were honored to have Mrs. W. S. Reiley, our state president, with us.

Committees were appointed to investigate projects for providing rooms for visiting wives and mothers of soldiers at the air base, for wartime help with the Community house, and to cooperate with the Woodbury County Medical Society in activities concerning the Wagner-Murray-Dingell Bill.

Following this the election of officers was held. The new officers are: Mrs. Roy E. Crowder, president; Mrs. Roland T. Rohwer, vice president; Mrs. Edward H. Sibley, secretary; and Mrs. Patrick E. Keefe, treasurer.

Mrs. E. H. Sibley, Secretary.

## A MEDICAL ADMINISTRATOR LOOKS AT THE FUTURE OF MEDICINE

By Anthony J. J. Rourke, M.D.,  
of San Francisco

*The National Hospital Forum* is in receipt of a pamphlet, reprinting from the December issue of *The Bulletin of the San Francisco County Medical Society*, the speech given by Dr. Rourke before that society on the occasion of their Seventy-fifth Anniversary. Had we time and space, we would like to reprint this sane and complete study of the future of medicine, particularly the references to the hospital in its relation to the legislation proposed by the Wagner-Murray-Dingell Bill.

A dozen points made by Dr. Rourke, we quote herewith—

"1. There is a segment of the population which does not know how to secure the medical care that is available to it.

"2. There is a vast difference between medical needs and medical demands.

"3. For employed individuals earning \$3,000 a year or less, some type of prepayment health plan whereby the cost of medical care may be spread is desirable.

"4. Hospital facilities need much attention. The existing facilities can stand considerable improvement and alterations to meet present needs. Many rural communities need the addition of hospital facilities.

"5. The constant presence of a medical staff in and around a hospital may have benefits to the patient and to the physician.

"6. There is a growing feeling, not only on the part of the public, but also on the part of some of the medical profession, that the American Medical Association must take more positive action on a national basis than it has in practical methods of distributing medical care more widely.

"7. There is a lack of confidence on the part of the physician in a type of government-controlled medicine.

"8. There is lacking satisfactory cooperation between hospitals and physicians on a national level.

"9. There is an alleged lack of confidence on the part of the public in organized medicine.

"10. There is a real lack of public education in medical practice as it exists.

"11. The American public in general still desires free choice of doctor and free choice of hospital when ill.

"12. Much greater emphasis should be placed upon the correction of basic conditions which are closely related to ill health. Food, housing, transportation and employment, if properly planned for in the postwar world may reduce medical needs considerably."—*The National Hospital Forum*, January, 1944.

## DALLAS-GUTHRIE AUXILIARY SCORES IN HYGEIA CONTEST

The Woman's Auxiliary to the Dallas-Guthrie Medical Society was the only one in the state of



Iowa which was listed in the recent subscription contest for *Hygeia*. The Dallas-Guthrie Auxiliary was one of the group of counties which reached or exceeded its quota.

Mrs. K. M. Chapler,  
County Chairman of *Hygeia*.

### "CAN THE FAMILY DOCTOR CURE THE NATION'S ILLS?"

"... It is unfortunate that whether through ignorance, misunderstanding or deliberate misrepresentation the impression is general that the A. M. A. has no policy or program of its own and that when it opposes inept or downright dangerous legislation it is merely following a policy of obstructionism and a worship of the status quo. This is far from the truth; the history of the Association is filled with examples of unselfish and even militant efforts to improve the health of the people. As far back as 1939 its House of Delegates adopted the eight point platform. But this was for the most part a mere crystallization of policies and programs previously expressed on many occasions. The proposal that the federal government unify the medical interests of its many bureaus and agencies under one national health department actually goes as far back as 1875. The A. M. A. has consistently held that no one single plan or program could be found to act as a panacea for the entire nation; it has urged that local communities be held responsible for providing medical facilities and service to their own people but that federal assistance should be given when local resources are inadequate; it has encouraged its state and county groups to experiment with new ideas, new forms of service, new programs so that by evolution and growth ways can be found to meet new conditions.

"The practicing physicians of the nation are faced with a grave responsibility. It is their part to support and strengthen their medical organization, county, state and national; to support and assist in the work of the new Council on Medical Service and Public Relations; to become familiar with the principles expressed in the 'platform' of their national organization; and to interpret those principles on any and all occasions to their patients, their friends and their legislators."—*Nassau Medical News*.

### ARE YOU AN IDEAL WIFE?

(The following questionnaire prepared by Winnie M. Sanger, M.D., appeared in *Medical Economics* a few years ago. At that time Dr. Sanger had been practicing medicine for twenty-nine years and believed that any woman who could score 90 or better was an ideal wife.)

1. Do you refrain from complaining about the doctor's irregular hours and the calls he has to make at inconvenient times during the day and night? (10- )

2. Do you see to it that he gets appetizing, nourishing meals, as well as a snack to eat whenever he needs it after a night call? (10- )

3. Do you help him to enjoy a reasonable amount of recreation at home or in outdoor sports where only emergency calls can reach him? (10- )

4. Are you cordial, tactful, and considerate whenever you have occasion to talk with one of your husband's patients? (10- )

5. Are you building contacts for the doctor by frequently attending clubs, parent-teacher associations, and other civic organizations, and by getting as widely acquainted in your neighborhood as possible? (10- )

6. Do you side-step all gossip and scandal, and avoid discussing your husband's medical cases or those of other local physicians? (10- )

7. Can you and do you stimulate confidence in the doctor at every opportunity, without appearing to do so? (10- )

8. Have you a tastefully arranged, well-kept home that patients admire and where your husband can find rest and enjoyment? (8- )

9. Are you able to discuss intelligently with both lay and professional friends most of the currently talked about medical items of interest, manifesting at the same time a good general knowledge of things pertaining to medicine? (5- )

10. Are you always well-groomed, without suggesting by your manner of dress that you have a wealthy husband who doesn't need to collect for his services? (5- )

11. Do you devote yourself to the job of being a real companion to the doctor during his spare time, accompanying him on calls and to meetings now and then when he asks you to? (5- )

12. Do you curb your desire to inflict personal worries and responsibilities on him when he has his own to think about? (3- )

13. Is it a rule with you to avoid giving your husband the impression that you are jealous of his women patients? (2- )

14. Do you visit his office occasionally to do what you can by way of making it a pleasanter, more efficient place in which to work and receive patients? (2- )

### SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:05 p. m.

WSUI—Thursdays at 9:00 a. m.

May 3- 4 Sinus Infections

Garfield M. Thein, M.D.

May 10-11 Diabetes

Earl H. Antes, M.D.

May 17-18 Prenatal Care

Earl O. Reynolds, M.D.

May 24-25 Anesthesia

Lester J. Spinharney, M.D.

May 31-June 1 Care of Home Accidents

Maryelda Rockwell, M.D.

## SOCIETY PROCEEDINGS

### Black Hawk County

The regular meeting of the Black Hawk County Medical Society was held Tuesday evening, April 18, at Black's Tea Room in Waterloo. Dinner was served at 7:15 p. m., following which the group was addressed by Lieutenant Commander Clark N. Cooper, M.C., United States Naval Reserve, who is now stationed in Ottumwa.

S. A. Barrett, M.D., Secretary

### Johnson County

The Johnson County Medical Society met in Iowa City Wednesday, April 5, at 6:00 p. m. at Hotel Jefferson. The scientific program consisted of a very interesting discussion of the Management of Cardiospasm by Dean M. Lierle, M.D., Head of the Department of Otolaryngology, and Frank R. Peterson, M.D., Head of the Department of Surgery at the University.

R. H. Flocks, M.D., Secretary

### Page County

It was erroneously reported in the April issue of the JOURNAL that at a meeting of the Page County Medical Society on March 2 Dr. Norman D. Render of Clarinda was elected president of that society. Dr. Norman M. Johnson of Clarinda was elected president. The other officers elected were Dr. Frank H. Clark of Clarinda, vice president, and Dr. J. Frank Aldrich of Shenandoah, secretary and treasurer.

### Pottawattamie County

The Pottawattamie County Medical Society met in Council Bluffs Tuesday evening, March 21. The guest speaker of the evening was Willis E. Brown, M.D., Assistant Professor of Obstetrics and Gynecology at the University of Iowa College of Medicine.

### Scott County

The April meeting of the Scott County Medical Society was held Tuesday, April 4, at 6:00 p. m., at the Lend-A-Hand Club in Davenport. Frank E. Thornton, M.D., of the Department of Orthopedics at the University of Iowa College of Medicine, presented a talk on a variety of injuries, stressing the more common types which are of interest to the practitioner.

L. J. Miltner, M.D., Secretary

### Wapello County

At the first of its bi-monthly meetings in April, the Wapello County Medical Society had as its guest speaker Adolph Sachs, M.D., of Omaha, who spoke

on Hypertension. The meeting was held at Hotel Ottumwa, Tuesday evening, April 4.

The second meeting of the month was held at St. Joseph Hospital in Ottumwa Tuesday, April 18, at 8:00 p. m. The scientific program consisted of a film, entitled Carcinoma of the Larynx, Tracheotomy and Thyrotomy, by Gordon B. New, M.D., of Rochester, Minnesota, which was presented and discussed by D. O. Bovenmyer, M.D., of Ottumwa.

### Iowa and Illinois Central District Medical Association

The annual meeting of the Iowa and Illinois Central District Medical Association will be held Thursday afternoon and evening, May 25, at the Inn, Blackhawk State Park, Rock Island, Illinois. The program for the meeting will be found on page 211 of this issue.

James Dunn, M.D., Secretary

### PERSONAL MENTION

Dr. George L. Prentice, who has been located in Troy for the past five years, has announced the opening of an office in Bloomfield for the general practice of medicine. His office is located in the National Bank Building of that city.

Dr. J. Carl Painter of Dubuque was elected President of the Iowa Tuberculosis Association at its annual meeting held in Des Moines March 30 and 31, 1944.

Dr. Charles K. McCarthy, recently superintendent of a tuberculosis sanatorium in Danville, Illinois, and formerly associated with the tuberculosis division of the State Department of Health in Des Moines, has located in Webster City for the general practice of medicine. Dr. McCarthy will occupy the offices formerly occupied by the late Dr. E. F. Rambo.

Dr. Bernard B. Parker of Centerville spoke before the Lions Club of that city at its meeting Monday evening, March 27. The topic of Dr. Parker's discussion was Help Keep Doctors Well.

Dr. Edmund G. Zimmerer, Director of the Division of Cancer Control of the State Department of Health, was the guest speaker at a meeting of the Dubuque Women's Field Army, American Society for the Control of Cancer, at the Dubuque Elks Club Monday evening, April 17, at eight o'clock. Dr. Zimmerer discussed The Control of Cancer in



Iowa and presented a movie in connection with his address.

Dr. Merlin A. Schrader, a former Iowan who has recently been located in Montgomery, Alabama, has moved to Webster City where he has opened an office in the suite of rooms in the Richardson Building formerly occupied by Drs. G. T. McCauliff and J. L. Ptacek. Dr. Schrader will continue the general practice of medicine with special attention to surgical problems.

Dr. Lee R. Woodward of Mason City spoke before the Rotary Club of Clear Lake at its meeting Thursday noon, April 6. The subject of his discussion was Socialized Medicine.

Dr. Frederick W. Mulsow of Cedar Rapids spoke before the Kelvin Society of Coe College Tuesday evening, March 21. The subject of Dr. Mulsow's address was Recent Advances in the Science of Medicine.

#### DEATH NOTICES

de Bey, John Gerard, of Orange City, aged sixty, died April 17 of heart trouble. He was graduated in 1910 from Drake University College of Medicine, and at the time of his death was a member of the Sioux County and Iowa State Medical Societies.

Lewis, Samuel Jones, of Columbus Junction, aged seventy-three, died March 29 following an illness of six weeks. He was graduated in 1896 from Missouri Medical College in St. Louis, and at the time of his death was a member of the Louisa County and Iowa State Medical Societies.

Lohr, Oscar Clare, of Churdan, aged seventy-one, died suddenly April 9 of coronary thrombosis. He was graduated in 1896 from Barnes Medical College in St. Louis, and at the time of his death was a member of the Greene County and Iowa State Medical Societies.

Stotler, Willis Frederick, of Shenandoah, aged seventy-seven, died March 25 of hemiplegia in Orangeburg, South Carolina. He was graduated in 1893 from Louisville Medical College in Louisville, Kentucky, and had long been a member of the Page County and Iowa State Medical Societies.

MacDougal, Roderick Frederick, of Cedar Rapids, aged thirty-four, died February 24 in Liverpool, England, while serving as a Captain in the Medical Corps of the Army of the United States. He was graduated in 1935 from Yale University School of Medicine, and at the time of his death was a member of the Linn County and Iowa State Medical Societies.

#### SCIENTIFIC EXHIBIT AWARDS

The State University of Iowa received first award for its scientific exhibit of electrocardiograms at the Ninety-third Annual Session of the Iowa State Medical Society. Second award went to Iowa Methodist Hospital in Des Moines for its exhibit of cardiac research, and Dr. F. P. McNamara of Dubuque received third award for his exhibit of cardiac pathology. All of the exhibits were excellent this year and it is hoped that everyone who attended the meeting took the opportunity to see these outstanding displays. Five of the exhibits were furnished by the American Medical Association.

#### GOVERNMENT HOSPITALS NEED OCCUPATIONAL THERAPISTS

While on battlefronts scattered throughout the world our armed forces are concentrating on winning the war, in Army and Veterans' hospitals here in the United States, trained occupational therapists are among those bending their efforts toward winning the peace.

These therapists are erasing the ravages of war by the systematic rehabilitation of injured bodies and minds. Some of the war-wounded are reconditioned for further service in the Army; others are fitted for useful civilian work in a normal environment.

As increasing numbers of injured soldiers return to the hospitals, more and more occupational therapists are needed to aid in their adjustment to normal life. In greatest demand are experienced graduates of accredited occupational therapy schools. Experience should be in hospitals acceptable to the American Medical Association. For some positions, however, college training in psychology and in arts and crafts or trades and industries, or experience as a junior aide in Veterans' hospitals, may be substituted for training in occupational therapy schools. Other positions will be filled by inexperienced graduates of occupational therapy schools.

The salary range of these positions is \$1,970 to \$2,433 a year, including overtime pay. Those appointed at \$1,970 will be trainees for a period of eighteen months; those appointed at \$2,190 and \$2,433 will administer occupational therapy under medical and general supervision, in Army and Veterans' hospitals.

There are no age limits and no written tests, but applicants must be physically capable of performing the duties involved. Persons now using their highest skills in war work should not apply. Federal appointments are made in accordance with War Manpower Commission policies and employment stabilization program.

Further information on Occupational Therapy Aide positions and forms for applying can be obtained from first- and second-class post offices or from the United States Civil Service Commission, Washington 25, D. C.

# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**TRAUMATIC INJURIES OF FACIAL BONES**—By John B. Erich, D.D.S., M.D., consultant in laryngology, oral and plastic surgery at the Mayo Clinic, assistant professor of plastic surgery, The Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota; and Louie T. Austin, D.D.S., head of section on dental surgery, The Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota. In collaboration with Bureau of Medicine and Surgery, U. S. Navy. W. B. Saunders Company, Philadelphia, 1944. Price, \$6.00.

**FRACTURES AND DISLOCATIONS for Practitioners**—By Edwin O. Geckeler, M.D., fellow of the American College of Surgeons, fellow of the American Academy of Orthopaedic Surgeons, diplomate of the American Board of Orthopaedic Surgery. Third edition. The Williams and Wilkins Company, Baltimore, 1943. Price, \$4.50.

**THE 1943 YEAR BOOK OF GENERAL SURGERY**—Edited by Evarts A. Graham, M.D., professor of surgery, Washington University School of Medicine; surgeon-in-chief of the Barnes Hospital and of the Children's Hospital, St. Louis. The Year Book Publishers, Inc., Chicago, 1943. Price, \$3.00.

**A TEXTBOOK OF PATHOLOGY**—Edited by E. T. Bell, M.D., professor of pathology in the University of Minnesota, Minneapolis, Minnesota. Fifth edition, enlarged and thoroughly revised. Lea and Febiger, Philadelphia, 1944. Price, \$9.50.

**METHODS OF TREATMENT**—By Logan Clendening, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals; and Edward H. Hashinger, M.D., clinical professor of medicine, Medical Department of the University of Kansas, attending physician, University of Kansas Hospitals, attending physician, St. Luke's Hospital, Kansas City, Missouri. Eighth Edition. C. V. Mosby Company, St. Louis, 1943. Price, \$10.00.

**THE 1943 YEAR BOOK OF GENERAL MEDICINE**—Edited by George F. Dick, M.D.; J. Burns Amberson, Jr., M.D.; George R. Minot, M.D.; William B. Castle, M.D.; William D. Stroud, M.D.; George B. Eusterman, M.D. The Year Book Publishers, Chicago, 1943. Price, \$3.00.

**HEALTH AND HYGIENE—A Comprehensive Study of Disease Prevention and Health Promotion**—By Lloyd Ackerman, Western Reserve University. The Jaques Cattell Press, Lancaster, Pennsylvania, 1943. Price, \$5.00.

**THE PRINCIPLES AND PRACTICE OF OBSTETRICS**—By Joseph B. DeLee, M.D., formerly professor of obstetrics and gynecology, emeritus, University of Chicago, consultant in obstetrics, Chicago Lying-in Hospital and Dispensary, consultant in obstetrics, Chicago Maternity Center; and J. P. Greenhill, M.D., attending obstetrician and gynecologist, Michael Reese Hospital, obstetrician and gynecologist, associate staff, Chicago Lying-in Hospital, attending gynecologist, Cook County Hospital, professor of gynecology, Cook County Graduate School of Medicine. Eighth edition, entirely reset. W. B. Saunders Company, Philadelphia, 1943. Price, \$10.00.

**APPLIED DIETETICS, The Planning and Teaching of Normal and Therapeutic Diets**—By Frances Stern, chief of Frances Stern Food Clinic, The Boston Dispensary; assistant in medicine, Tufts College Medical School; special instructor in dietetics in social service, Simmons College, The School of Social Work; associate in nutrition, Simmons College School of Home Economics. Second edition. The Williams & Wilkins Company, Baltimore, 1943. Price, \$4.00.

**THE ARTHROPATHIES—A Handbook of Roentgen Diagnosis**—By Alfred A. de Lorimier, M.D., Colonel, Medical Corps, United States Army, Commandant, The Army School of Roentgenology, Memphis, Tennessee. Formerly director, Department of Roentgenology, Army Medical School, Washington, D. C. The Year Book Publishers, Inc., Chicago, 1943. Price, \$5.50.

## BOOK REVIEWS

### ELEMENTS OF MEDICAL MYCOLOGY

By Jacob Hyams Swartz, M.D., assistant professor of dermatology, Harvard Medical School and Postgraduate School; member American Dermatological Association, American Mycological Association; dermatologist, Massachusetts General Hospital. Introduction by Fred D. Weidman, M.D., professor of dermatological research, University of Pennsylvania. Grune & Stratton, Inc., New York, 1943.

The fact that such an outstanding authority in the field of medical, especially dermatologic mycology, as Fred D. Weidman, M.D., wrote an introduction to the little book is by itself enough of a recommendation.

The 179 page volume is a valuable little guide for anyone—student, general practitioner, or dermatologist—who wants to find his way through the usually confusing maze of different kinds of fungus infections. The book should prove to be of especial value to the busy general practitioner who wants to familiarize himself with the subject, because it contains a wealth of information in a few pages, which can be perused in a few spare minutes.

The form is precise, and, although the author mentions that some parts might seem to be dogmatic, this should be an advantage for the inex-

perienced practitioner, since it greatly helps to find one's orientation in the otherwise bewildering multitude of different fungus infections.

The book contains good advice for treatment according to the author's own experience. A large chart showing the characteristics of the different organisms should be helpful. The illustrations are numerous and good.

With the very incidence of some common fungus infections among the population, and the confusion about their nature and treatment found among many practitioners, the little book should have its place.

H. C. L.

### RECONSTRUCTIVE SURGERY OF THE EYELIDS

By Wendell L. Hughes, M.D., Hempstead, New York. The C. V. Mosby Company, St. Louis, 1943. Price, \$4.00.

This compact, well planned, and beautifully executed little monograph will appeal not only to the ophthalmic surgeon, but at the present time to all surgeons occupied in repairing the results of war wounds.

It presents a very complete history and bibliography of the subject and is copiously illustrated



with drawings and photographs which are unusually clear. Particularly interesting are the author's own cases of complete reconstruction of the lid with transplantation of tarsal cartilage and cilia.

The monograph was written as a thesis for the American Ophthalmological Society and presupposes a thorough knowledge of plastic procedures on the part of the reader. W. K.

## MANUAL OF THE DISEASES OF THE EYE

By Charles H. May, M.D., consulting ophthalmologist to Bellevue, Mt. Sinai, and French Hospitals, New York; formerly chief of Clinic and instructor in ophthalmology, Medical Department of Columbia University, and director of the eye service at Bellevue Hospital, New York; with the assistance of Charles A. Perera, M.D., associate in ophthalmology, College of Physicians and Surgeons, Medical Department of Columbia University, New York, assistant attending ophthalmologist, Presbyterian Hospital, New York. Eighteenth edition, revised. William Wood and Company, Baltimore, 1943. Price, \$4.00.

The author has omitted or abbreviated the non-essential details in eye diseases and has made clear and comprehensive the information which is pathologic and essential to treatment and cure. An authority referred to it as "a book every physician could to advantage read and use as a guide in his eye work."

Turn to Diseases of the Conjunctiva, the most frequently seen eye disease we are called upon to treat. Forty pages of carefully prepared text telling the physician what he sees, how to prevent the spread of infecting types to others, and how to treat it. Eighteen colored plates and six wood cuts acquaint us with the type we have before us and the text makes clear its treatment.

The story of the retina is in reality an evaluation of the sense of vision. In the normal living eye the retina is transparent. It may throughout life function with its structure unimpaired or a careful reading of a fundus may tell of a sick kidney, or diabetes, or essential hypertension, or cerebral circulation interference, or central artery obstruction with blindness or pigmentary degeneration, or any one of a dozen pathologies written in a bold hand and plainly readable through the pupil. When carefully studied and compared, the colored plates of the normal and pathologic retina so clarify the text in May's book as to make the diagnosis of the presence or absence of serious ailments. The work is factual, the text clear and complete.

The volume should be of great worth to every medical student and it will be found on the work table of most specialists in eye work. E. G. L.

## OUT OF THE TEST TUBE

By Harry N. Holmes, Ph.D., professor of chemistry at Oberlin College; 1942 president of the American Chemical Society. Fourth edition, revised and expanded. Emerson Books, Inc., New York, 1943. Price, \$3.00.

In this new edition, Dr. Holmes has brought the story of organic, inorganic, and analytical chemistry up to date and has given us a glimpse of what to expect tomorrow. It is a dramatic record of scientific research, into the mysteries of nature, which affects all the affairs of man—economics, social relations, the arts, national defense, and world affairs.

Out of the chemist's test tube have come such essential products as rubber, plastics, radium, chemical dyes, plywood, sugar, vitamins, duco-lacquer, alloys, electric lights, x-ray tubes, and panchromatic films.

Louis Pasteur laid the foundation for bacteriology through his studies of wine and beer, and later, with his scientific attacks on anthrax and rabies, paved the way for Robert Koch, Joseph Lister, and other outstanding leaders of medical research.

Chemical science supplies the medical profession with toxins, antitoxins, vaccines, anesthetics, hormones, enzymes, and alleviative and curative drugs. The related sulfa drugs are a recent important contribution to chemotherapy and are invaluable in combating pneumonia and other dangerous infections.

Yeasts, molds, and certain bacteria are working in laboratories on the side of man. Yeast culture can easily supplement agriculture if overcrowding conditions become acute. Thirty men, working in a factory the size of a city block, can produce as much food in the form of yeast as one thousand farmers cultivating fifty-seven thousand acres under ordinary circumstances.

At the present time scientific interest is centered on penicillin, a therapeutic substance more potent than any sulfa drug and which has the great advantage of having no bad effects on the human body. The minute quantities produced by mold are insufficient—chemistry's hope is to synthesize it.

The cooperation between capital, chemists, and government at the beginning of the present war accomplished wonders in reducing the period of time between the test tube and large scale production, thus proving again, as in World War I, the industrial and military importance of chemical research. Truly, the frontiers of today are those of chemical and medical science. M. C. D.

## SAVE MEDICAL JOURNALS

Dr. Jeannette Dean-Throckmorton, Librarian of the Iowa State Medical Library, located in the Historical Building in Des Moines, is most anxious to receive old copies of medical journals. They should be sent direct to her.

# The JOURNAL

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### HEAD INJURIES\*

ADRIEN VER BRUGGHEN, M.D.†  
Chicago, Illinois

#### MANAGEMENT OF HEAD INJURIES

Until recently the subject of head injuries was regarded as being that of closed head injuries. Since the war, we have to specify whether closed or open head injuries are meant. Since this discussion is intended for practitioners among the civil population, open head injuries will not be considered. A great deal has been done in the last ten years with regard to the treatment of head injuries. In the main, more and more conservative methods have been employed, with very few exceptions, by those who are engaged in the constant care of this type of injury. Some years ago the mortality statistics were appalling, and, curiously enough, at that time there was a tendency for various meddlesome types of surgical interference. Anyone who is interested will find that the mortality rate has steadily decreased, subject to a certain extent to the type of cases admitted to the various hospitals. In comparing statistical notes, it is necessary to know, as far as possible, the type of case being admitted to the hospital. At the Cook County Hospital, where we have a large ward which admits between seventeen and nineteen hundred patients a year, the mortality rate is now in the region of 10 per cent. In other places a slightly lower mortality rate may be shown, while in still others the mortality rate may appear to be slightly higher; but a great deal depends, as was said before, upon the type of case being admitted. However, the best results are obtained by those who treat these patients cau-

tiously and with a conservative attitude. One might say "watchful conservatism" is the idea.

It is impossible to discuss closed head injuries without first defining some of the terms which are constantly used in connection with these cases. Different writers in different countries apply these terms in a different manner with the result that there is considerable confusion with regard to these terms. As a matter of practical experience, the term "concussion," for instance, is used in the very widest sense by different people. It would be quite impossible to say, when called in consultation to see a patient supposed to have concussion, whether one would find an individual deeply comatose, about to die, or whether one would find an individual perhaps sitting up reading a newspaper. At Cook County Hospital some years ago, many of the patients with head injuries who died were signed out as having concussion, and yet the same term was used in regard to, for instance, a boxer who was knocked unconscious for several minutes in the prize ring. Obviously, a term such as this can mean anything, and in order that it should be used at all, its use must be restricted. The best definition seems to be that of Trotter which he offered in 1924, "An essentially transient state due to a head injury which is of instantaneous onset—manifests widespread symptoms of the purely paralytic kind—does not as such comprise any evidence of structural cerebral injury and is always followed by amnesia from the actual moment of the accident." If such a definition as this is adopted, it is clear that the diagnosis of concussion can only be made in retrospect. By that I mean that if a patient is struck down in front of us and is unconscious, it is impossible for any one of us to say at this moment that the patient has a concussion. One would have to wait until such time as a complete recovery was made with regard to the patient. If such an incident were due to concussion, the patient would

\*Presented before the Wapello County Medical Society in connection with its postgraduate teaching program. The discussion was intended for purely practical purposes and, consequently, great stress was laid on treatment and there was little discussion of pathology or the various theories connected with the mechanism of head injuries.

†Neurosurgeon to Presbyterian, Cook County, and Michael Reese Hospitals; Associate Professor of Neurosurgery (Rush), University of Illinois.



regain consciousness rather rapidly, perhaps sometime between a few minutes and an hour or so, and after two or three days would have no symptoms referable to the injury to the head. On the other hand, if such a patient regained consciousness in an hour or so, and complained bitterly of headache for several days, and if blood were found in the spinal fluid, one could scarcely describe such case as being due to concussion in the sense to which we now wish to limit it. Various theories have been offered with regard to the mechanism of concussion, and it appears to me that the most satisfactory solution to this problem has been offered by W. W. Scott who made certain studies in animals.<sup>(1)</sup> He showed that certain cerebral anemia was a big factor, and that if the intracranial pressure was measured during a blow to the head, and the systolic blood pressure rose above the intracranial pressure, unconsciousness developed. For instance, a sudden rise of intracranial pressure above a systolic pressure caused immediate unconsciousness whether by a blow to the head or by other means. Maintaining the intracranial pressure above the diastolic pressure did not produce unconsciousness, but maintaining the intracranial pressure above the systolic pressure did produce unconsciousness. In the experiments unconsciousness lasted over four minutes, and the brains of the dogs were examined and no organic changes were found. Considering all the evidence, the mechanism of concussion is probably best described as a sudden molecular disturbance of the cells with loss of function associated with a sudden cerebral anemia and, probably, local changes in the blood vessels of vasoconstriction followed by vasodilatation.

Compression is another term which one sees, especially in the English literature, which may have one of several meanings. In some cases the author means local compression, such as is found with localized clots, say an acute subdural hematoma or an extradural hemorrhage. In other cases the word compression is used in the same general sense as we are accustomed to use the term increased intracranial pressure. The common use of the term "skull fracture" is misleading and one frequently sees discussions of head injuries under this heading. In this connection, it is interesting to note that 40 per cent of the patients who died and had a postmortem examination on our service at the Cook County Hospital did not have skull fracture. Consequently, the term "skull fracture" is of little value in dealing

with this problem of brain injury, except as it applies to fracture of the cranial bones. Other terms have caused considerable confusion, also, and they date back to the time before a concerted effort was made to understand the mechanisms of these injuries.

Faced with this confusion in terms and faced with the fact that these terms offer no solution to the treatment of the patient, I adopted the following classification in 1934 for the use of the interns at the Cook County Hospital. Here they saw the patients admitted to the ward and they required some guide to the treatment of each individual case. Although this classification has been slightly modified, it is essentially the same now as then, and it is pleasing to note that a similar classification has been adopted by others in different parts of the country. This classification may appear to show some prescience on the part of the individual who sees the patient, but all of you will understand clearly the type of case that is meant as the plan unfolds itself.

#### CLINICAL CLASSIFICATION OF HEAD INJURIES

1. The patient with a non-fatal injury.
2. The patient with a fatal injury.
3. The patient with an indeterminate injury.
  - 1a or 3a. The management of injury to the cranial bone.
  - 1a or 3a. The patient developing new symptoms.
  - 1a or 3a. The patient with sequelae.

#### Class 1

#### THE PATIENT WITH A NON-FATAL INJURY (Mild case)

The patient is usually brought in semiconscious, restless, irritable, and with a slight degree of collapse. Answers questions and moves all four extremities. Pupils react and reflexes present. Pathology: usually contusions, perhaps with petechial hemorrhages and later a slight degree of cerebral edema.

Many of these patients have concussion in the sense that we are willing to accept it. Others, however, have slightly more serious injuries. In some a closer examination will reveal that they have blood in their spinal fluid, and other pathologic signs and complications may develop. Patients may arrive in the hospital in this condition who have received a severe blow to the face and nose. The soft bones of the face and nose, having absorbed all the force, present a terrifying spectacle because of the disfigurement and swelling of the face and bleeding from the nose, but on account of the fact that the soft bones have absorbed most of the injury, the damage to the brain appears to be comparatively slight. The patient with this class of clinical picture may also have a depressed fracture or a compound depressed fracture which may require treatment. Incidentally, patients may

(1) A. E. Walker and others in a recent study concluded that severe concussions of the head produced a breakdown of the polarized cell membranes of many neurons in the central nervous system thus discharging their axones. This was said to be responsible for the period of unconsciousness in concussion.

arrive in this condition with open wounds of the brain from shell fragments and from bullets, but with regard to the closed head injuries to which we are confining our discussion, such a patient, if carefully observed and watched, will require little except symptomatic treatment, and by far the great majority of them will recover fully without complications.

### Class 2

#### THE PATIENT WITH A FATAL INJURY (Very serious case)

The patient is brought in in profound collapse with all the classical symptoms of traumatic shock. The injuries are often multiple; for example, broken ribs, fractured pelvis, broken legs. Coma is deep, painful stimuli produce little or no response, pupils do not react, and deep reflexes are absent. Pathology: multiple contusion and laceration of the brain with rapidly oncoming cerebral edema. Death occurs within a few hours.

The term "fatal injury" is applied to this type of case since it is felt that no matter what is done, for all practical purposes the patient in this condition cannot be saved, and his injury could be regarded as fatal from the moment he was struck. The multiple injuries, the deep coma, and the absolute inhibition of the nervous system to all forms of stimulation indicate a most profound injury. The absence of pupillary reflexes, the deep reflexes, which one sees frequently in sudden violences to the nervous system, such as in spinal shock, or immediately following cerebral hemorrhage, indicates a severe injury. (Following all kinds of sudden and severe accidents to the nervous system, it becomes completely inhibited for a certain time.) You are all more or less familiar with the postmortem findings in such a case: bleeding into the cranial cavity (old blood and new blood); various lacerations of the brain, some at the site of the violence and others at the opposite pole; the vessels on the surface are ruptured; when the brain is cut, petechial hemorrhages are seen, and in addition to this, the whole brain is swollen with obliteration of the ventricles and the subarachnoid space.

### Class 3

#### THE PATIENT WITH AN INDETERMINATE INJURY (Serious case)

The coma is relatively deep and the picture of traumatic shock is conspicuous. Painful stimuli cause movements of all four extremities, the pupils react poorly to light, the deep reflexes may be present with the sign of Babinski. In the first few hours the picture of shock disappears, being replaced by a full bounding pulse, rising blood pressure, fever, and continued coma. This condition may remain unaltered for many hours or even days. Pathology: multiple contusions and multiple minor lacerations of the brain with petechial hemorrhages and cerebral edema.

The fact that the patient in this condition has reflexes, for instance that the pupils react, the deep

reflexes may be present, and the Babinski sign can be found, is indication that the profound inhibition is absent as compared to the type of case mentioned in the previous classification. Although many patients in this classification succumb, there are many who survive, and it is almost impossible to say what the outlook is, except that it is very serious. In some respects, the sooner a patient of this type comes out of shock, the lower the fever remains and the better the pupils react, and the more likely he is to recover.

Now, having established to some extent the type of patient which is meant by this classification, we may go on to the treatment, because, essentially, that is the purpose of this discussion.

### Class I

#### THE PATIENT WITH A NON-FATAL INJURY (Mild case)

##### The Treatment of Shock

##### Immediate Treatment:

- A. Rest in bed and absolute quiet.
- B. Sedatives—paraldehyde.
- C. Mechanical restraint and constant supervision.
- D. Frequent medical observation.

##### Further Treatment:

- E. Spinal puncture (possibly) when quiet and tractable for presence of blood in spinal fluid.
- F. If the spinal fluid is bloody, rest in bed, for at least three weeks.
- G. With clear spinal fluid, may be allowed up when symptom free.
- H. Observation at intervals for six months.

It goes without saying that rest in bed and absolute quiet are essential, and it is not necessary to elaborate on this theme.<sup>(2)</sup> Sedatives, however, are always a difficult problem in the treatment of head injuries. Morphine is never used since it has predilection for the respiratory center which it depresses. It is known that most of these individuals, when they die, die of a respiratory failure or rather a failure of the respiratory center through increased intracranial pressure. Consequently, giving morphine leads to further embarrassment. Other sedatives, such as seconal, nembutal, amy-tal, and phenobarbital, may work admirably at times. However, they have a common characteristic; that is, in some, you might even say in many, of these cases they depress the patient at first, but after a short time, when he is no longer under the depressing influence of the drug, the patient becomes much more active and restless than he was

(2) Recent work undertaken in the armed forces in which patients were let up as soon as possible after injury of any severity, tends to show that the statement in the text may not be correct. However, in civil practice it would seem to be a good rule to advocate rest in bed.



before it was administered. In other words, there seems to be a reaction of excitement. The only drug which does not seem to produce a similar reaction is paraldehyde. Paraldehyde has, unfortunately, fallen into disrepute because of its use in large state institutions. From a practical point of view, and having tried without success other types of sedatives, I find that the most satisfactory results are obtained with the proper use of paraldehyde. The method of administration is important. Paraldehyde should only be given, incidentally, to active, non-cooperative patients. Patients who are able to cooperate, usually do not require such treatment. However, in the non-cooperative patient who can swallow, 2 drachms can be given every fifteen minutes until the patient is quiet. In the event that the patient cannot swallow, 4 drachms dissolved in a little water may be given every fifteen minutes until the patient is quiet. When the patient is quiet, occasional sustaining doses may be given if he appears to be too restless. The patients with mild injuries, who have pain and headache, should be given a grain of codeine and 10 grains of aspirin. This will be found to be an acceptable remedy and one which is very effective in this kind of patient. It may be repeated in two or three hours if required. Unless one is sure that the patient is cooperative and is oriented, and understands precisely what is expected of him, mechanical restraints should be applied. Many of these patients are extremely deceptive and some of them are actually automatic, later on showing that they have no recollection of what they have done. The patient should be mechanically restrained unless constant supervision is available; otherwise, they may injure themselves falling down stairways or jumping out of windows. A leg, perhaps, should be fastened to the bed in such a way that they cannot make any sudden, dangerous movements. Disregard of this advice may lead to unexpected disappointment in connection with these cases. Although little is done therapeutically for this type of patient, it is of the utmost importance to keep up a constant neurologic observation, since in the space of a few hours the condition of the patient may present a totally different aspect. A check should be kept on the patient's state of consciousness, especially when he has recently been admitted. He should be awakened every hour during the night to make sure that coma has not been mistaken for sleep. The size of his pupils should be observed, the state of his extremities should be noted, examination for changing neurologic signs should be frequent, and questions should be asked about subjective phenomena.

In this class, the patient is often admitted who

develops an extradural hemorrhage; he is admitted in a dazed and restless condition, and later on develops deepening coma and becomes paralyzed on one side. A condition such as this, if not observed early, may successfully resist all skilled attempts to relieve it. After the patient is quiet and tractable, it may be reasonable to do a spinal puncture. In this case the spinal puncture would be done for diagnostic purposes; in other words, to determine the presence or absence of blood in the spinal fluid. Naturally, in the event that bloody fluid is found, a more serious view must be taken of the condition than if the spinal fluid were found to be clear. If the spinal fluid is bloody, the patient should be kept at absolute rest for at least three weeks. The blood in the spinal fluid indicates either a contusion which is leaking or laceration of a vein. Such a laceration, if unassociated with serious unconsciousness, would probably not be of any great extent. It is felt that only by adequate rest in bed can one avoid possible sequelae. The posttraumatic syndrome of headache, dizziness, lack of concentration, and apprehension, seems more prone to develop in patients who did not have adequate rest in bed following their injury.\* Of course, the syndrome may develop in spite of anything which is done to avoid it. Spinal puncture is justified, in my opinion, whenever information can be obtained which will lead to a better understanding and a better care of the patient. If a spinal puncture is performed without such a specific idea in mind, it is unjustifiable. Routine spinal punctures are just as unjustifiable, in my opinion, as no spinal punctures at all. The patient with the relatively minor head injury should be kept under observation at regular intervals for a considerable time after the injury. Some patients with this type of injury develop subdural hematomata, or they develop posttraumatic epilepsy. When they are dismissed, they should be told to report at regular intervals to describe their feelings or to describe any new symptoms in order that prompt treatment may be adopted. It is remarkable how frequently elderly people, especially, die of a chronic subdural hematoma following an apparently trivial head injury.

#### Class 2

#### THE PATIENT WITH A FATAL INJURY (Very serious case)

#### The Treatment of Shock

#### Immediate Treatment:

- A. External heat (moderate) by means of a heat cradle.
- B. Intravenous blood plasma.
- C. Keep the patient flat.

\*See Footnote (2).

- D. Do not remove clothing.
- E. Arrest active bleeding, if present.
- F. Check the degree of shock with the hematocrit, or a red blood count, if possible.
- G. Give oxygen, if available.
- H. Check gross neurologic signs: pupils, deep reflexes, plantar reflexes, coma, and movements of the extremities.
- I. Certainly no unnecessary manipulations such as removing clothing, bathing the patient, moving the patient from stretchers to tables to beds. No x-ray pictures, elaborate arrest of hemorrhage or closure of lacerations of scalp, complete neurologic examination, or even complete physical examination until shock has passed off.

#### Further Treatment:

- J. If the patient survives, treat as in Class 3.

Treat shock first. It is remarkable how this elementary and simple procedure is not carried out. How often do we see a patient in a seriously injured condition taken to the x-ray room to be held there in various positions while roentgenograms are made of the skull and the neck? How often do we see a patient admitted to the hospital and taken up to the ward where he is met by the nurses who deftly remove all the clothing and expose large areas of body surface to the air? They then bathe him and finally put him to bed and, perhaps, send for a doctor. How often do we see elaborate neurologic and physical examinations inflicted on the patient who is obviously severely shocked? None of these things are of any value unless the patient survives, and the only possible way in which he is likely to survive is that he receive the promptest and most thorough treatment for his condition of shock. One should bear in mind this adage: "The heat cradle will act and the plasma will run on the fully clothed, dirty patient." For those who feel surgically inclined there is another adage which may be pointed out; namely, "You can always operate on a live patient."

External heat, however, must be used with caution. If the external heat is too great, it will contribute to shock rather than improve it. The amount of plasma which must be given varies; at first it might be run rather rapidly, and later somewhat more slowly until it is obvious by the blood pressure and the other symptoms and signs that the patient is responding in a satisfactory manner. The only really accurate way to determine the necessity of using plasma is by the hematocrit and the red blood count. If these are available, the amount of plasma to be used can easily

be determined. The patient should be kept flat. There is no particular object in putting the head low or lower than the feet, nor is there any particular object in raising the head while the patient is in shock. The arrest of bleeding should be entirely of a first aid nature until shock has passed off. When there is bleeding from the scalp, two or three small hemostats can be placed on the galea aponeurotica and turn out, and the whole thing can be held in place by a temporary bandage. Oxygen appears to have a beneficial effect in shock, although there has been considerable debate as to whether hemoglobin can be over-saturated and whether, if it is, it will deliver more oxygen to the tissues. However, if it is available, it should be used. Naturally the gross and fundamentally neurologic signs should be checked over in order to appreciate any change for the better in the patient. Unnecessary manipulations are so frequent that it seems to be impossible to prevent them. However, as time goes on and surgeons return from the war, perhaps a better standard of treatment of shock will develop. If the patient responds and the shock is overcome, and the neurologic signs improve, the patient can then be treated according to the classification which we have for the patient with the indeterminate injury. It appears, then, that the treatment of the patient with the fatal injury is really the treatment of shock, and differs very little from the treatment of any individual who comes in and who has sustained a serious injury.

#### Class 3

#### THE PATIENT WITH AN INDETERMINATE INJURY (Serious case)

##### The Treatment of Shock

##### Immediate Treatment:

- A. Treat traumatic shock as in Class 2.
- B. Check gross neurologic signs, coma, movements of the extremities, pupils, deep reflexes, and plantar reflexes.

##### Further Treatment (After Shock):

- C. Raise the head of the bed.
- D. Chart the blood pressure and pulse on the same chart.
- E. Change the patient's position frequently.
- F. Treat restlessness with paraldehyde — no morphine.
- G. Continue oxygen by nasal tube if available.
- H. Observe frequently for changing clinical picture.

##### Control of Increasing Intracranial Pressure:

- 1. Cautious dehydration using 10 per cent to 20 per cent glucose solution, intravenously.



2. Therapeutic spinal puncture.
3. Decompression (very rarely).

It is not necessary to discuss further the emergency treatment of the patient, nor to reemphasize the necessity of treating shock and having it under control before anything further is done. With regard to the general management of the patient with the indeterminate injury, however, we may mention certain things. After shock has passed off, the patient does better if the head of the bed is raised. It is wise to chart the blood pressure and pulse on the same chart; then there is immediate visual proof of whether or not there is compensation for increasing intracranial pressure. It is known that if the blood pressure and pulse remain parallel, compensation within the cranial cavity is taking place, whereas, if intracranial pressure is increasing and is not being compensated for, there is a tendency for the blood pressure to rise and the pulse to slow. This divergence of the two factors continues up to the point where the medulla fails, when the pulse rapidly rises, and the blood pressure rapidly falls. When this point is reached, there is nothing that can be done to save the life of the patient. Many of these patients become extremely restless, and it is necessary to treat them, as was mentioned before, with paraldehyde; under *no* circumstances should a patient in this condition ever be given morphine. Morphine is only used for *restlessness* in heart disease; its principal indication is the relief of pain, and we have no proof that these patients are restless because of pain. Sometimes they are restless because of a full bladder, but the treatment of that is obvious if the matter is given some consideration. On account of the fact that many of the symptoms and sequelae of head injuries may be due to long continued cerebral anoxemia, oxygen appears to be indicated, and from the practical standpoint, it appears to be of some value at the time. It should be given through a nasal tube. However, as soon as the necessity for it is over, it should be discontinued.

Ultimately, most of these patients who die do so because of increased intracranial pressure. The probable mechanism of this is, at first, hemorrhage into the intracranial cavity, and, later, swelling of the brain. The swelling of the brain is often diffuse, and when seen it is extremely characteristic. At this time it might not, perhaps, be out of place to mention a curious train of circumstances which occurred on the ward not so long ago. These circumstances also have some bearing on the term "skull fracture." On making rounds in the morning, I found two individuals side by side in the ward who had been injured about noon the previous day. One of these individuals had just

eaten some lunch and was reading the newspaper with his head bandaged; the other was lying breathing stertorously in coma, and, obviously, in a critical condition. The individual reading the newspaper had apparently been well enough to permit of his having had x-ray pictures that morning. The x-ray plates of his skull revealed that it was cut by many linear fractures; in fact, it resembled an egg that had been dropped on the floor. Except for these cranial bone injuries, the man appeared not very much the worse for his accident. The individual in the next bed died some few hours later and at postmortem examination, when the calvarium was removed, the dura was found to be extremely tense. When the dura was incised along the line in which the calvarium had been removed, the brain popped somewhat like a champagne cork with the result that the dura left in place over the vertex was separated by about an inch from that attached to the floor of the skull. No amount of pressure could bring that dura together again. When the dura was removed from the vertex, it was found that the surface of the brain was very much flattened; the convolutions looked as if they had been traced on with a pencil; there was no spinal fluid on the surface of the brain, nor anywhere else in the cranial cavity. When the brain was cut across, the ventricles were so completely obliterated that it was difficult to identify where they had been. There was also a little blood at the base and petechial hemorrhages at the junction of the grey and white matter. There were other changes, but the swelling was the most conspicuous thing. This was obviously a severe form of oncoming cerebral edema, and it is this to a mild degree which we are attempting to combat when we attempt to reduce the intracranial pressure in cases of head injuries. The only method which appears to be of real practical value is the method of dehydration by the limitation of fluid or by the administration of hyperglucose solutions. The strength of the solution used depends on the severity of the case and the specific purpose for which it is being used. As a routine procedure, we rarely use a solution stronger than 20 per cent, in which case, we give such a patient 500 cubic centimeters of 20 per cent glucose twice a day, and perhaps another 500 cubic centimeters of 10 per cent glucose intravenously. When the increased intracranial pressure appears to be coming on very rapidly, we may use a solution up to 25 per cent; rarely, if ever, do we use such strong solutions as 50 per cent. They are usually given in too small doses to be effective, or if they are given in large enough doses to be effective, the solution acts too suddenly and for too short a time. The ideal, under such circumstances, would be to

attempt to use a solution which maintains a constant, inhibitory action on the brain swelling, in which case the solution should probably be between 12.5 and 15 per cent, and should be allowed to run fairly slowly, at least as slowly as it can be effective with relation to the rate at which it is administered. The usual practice of giving 50 per cent glucose in quantities varying from those which are sure to be ineffectual to those which are almost sure to be detrimental, immediately following a head injury, should be avoided. However, to enter into a discussion specifically on this point would lead us far astray. It is sufficient to say, then, that in the majority of cases of head injury, 1,500 cubic centimeters of 10 per cent glucose is administered intravenously daily in divided doses for two or three days. I realize that 10 per cent glucose may not be hypertonic when it reaches brain tissue, especially if it is run in slowly. When a stronger solution is required, 20 or 25 per cent glucose in appropriate quantities may be used. For that matter, it would be difficult to prove that the life of a patient had been saved by the administration of hypertonic solutions. However, the 10 per cent glucose tends to dehydrate the patient and in that respect it has a beneficial effect. One must remember that the adage, "Do not dehydrate the patient to death," can be literally carried out, and that the remark is not as humorous as it appears to be. Dehydration can certainly not be continued over two or three days without the possibility of dangerous systemic reaction, in fact, just as dangerous a systemic reaction as the reason for dehydrating the patient. As soon as this stage is reached, one should make a speedy attempt to gradually obtain a proper fluid balance in the patient's system. The toxic reaction manifests itself by deterioration in the consciousness of the patient, relatively high fever, rapid pulse, and a general decline in the patient's condition.

The value of spinal puncture in relieving increased intracranial pressure is extremely debatable. In the first place, spinal fluid reforms rapidly, and in the second place, it acts as a fluid tampon against the swelling of the brain, and when it is removed it merely allows the brain to expand much more rapidly than it would in the presence of the uniform pressure the fluid exerts. If it is used at all, in my opinion, it can only be used to provide temporary respite to the medulla oblongata from the increase in intracranial pressure. This respite, in my opinion, would not hold for more than three quarters of an hour to an hour. If it is used for this purpose, a manometer should be used and the pressure in the manometer should be halved. To withdraw a lot of spinal fluid suddenly from a patient with markedly increased intracra-

nial pressure would certainly be dangerous. Neurosurgical work dealing with obstructions to spinal fluid flow shows that one may tap a ventricle, for instance, in a cerebellar tumor and remove 60 or 70 cubic centimeters under greatly increased pressure from one ventricular puncture only to find that two or three hours later exactly the same conditions pertain, that the fluid is under greatly increased pressure and that another 60 or 70 cubic centimeters can easily be removed. Under these circumstances, and considering the manner from the point of view of sudden relief of pressure, it seems hard to believe that spinal puncture could be of great therapeutic value in the treatment of rapidly increased intracranial pressure. In the event that a regime of spinal puncture and the use of intravenous solutions is adopted in a case of this kind, it would be well to divide the procedures into six hourly intervals, so that every six hours a spinal puncture alternating with the use of intravenous solutions is employed. It might be well to issue a word of warning here with regard to spinal puncture in patients in a serious condition. In my opinion, it is not the spinal puncture per se which is responsible for the untoward results which are said to follow it. It is more, to my mind, the characteristic manner in which these punctures are usually done. The habit of taking a patient with increased intracranial pressure and, perhaps, bending him across the knee with a restraining arm behind his knees and another arm behind his neck, and bending him double, is the thing, to my mind, which causes the trouble. Such a maneuver, if carried out on a relatively healthy person, would lead to a rapid rise in intracranial pressure. In the same way, an extremely restless patient should not be punctured because of the exertion and force which is required to puncture him, and because of the fact that having obtained such a puncture, perhaps with bloody spinal fluid, one would never know whether the blood were due to the trauma of the puncture or to the trauma of the injury. Spinal puncture may have its place in certain cases of headache and other disturbances following head injury, but I doubt whether it will ever be found to be of great value except as a purely emergency matter in the seriously injured patient. Incidentally, a spinal puncture should never be done on a patient who is in shock.

The only other available method of lowering increased intracranial pressure is by decompression, and here again it is important to define the term in the manner in which it is to be used. In the olden days when the mortality rate (and when I say olden, I mean fifteen years ago) of head injuries was so high, there were many statistical



reports quoting the mortality rate of between 30 and 40 per cent. Operative interference was a common thing; often it was meddlesome and vague, and most often it was ineffectual. Obviously, if a decompression is to be performed, it must be a wide decompression: that is, the opening in the dura should be at least three or four inches in diameter, and frequently, if it is to be effective, it should be carried out on both sides. Certainly, no little trephine hole or slightly enlarged trephine hole with a nick in the dura can be of any possible value as a decompression. As for its indications, they must be extremely rare since I can only remember enough cases to count on the fingers of both hands in which I have performed decompressions for long continued, moderately increased, intracranial pressure. If an individual stays in a relatively fixed state with regard to his coma, his general condition and his spinal fluid pressure, over a period of forty-eight hours, one might feel that further therapeutic action would be sufficient to turn the tide. Under these circumstances, in an individual in otherwise good condition, it may be of value, but certainly the conditions under which it should be done will be found to be extremely rare. A lot depends upon using the devices at our disposal as ably as we can. That is why no mention has been made, for instance, of the use of concentrated plasma to lower increased intracranial pressure. It has not been shown that it is more effective than glucose solution. No mention has been made of the use of concentrated sucrose solution, not because it may damage the kidney, since that is a minor matter if an individual is about to die without its use, but because it does not seem to be particularly advantageous as opposed to glucose, and over a period of days it has no caloric value whatever. No mention has been made of the use of concentrated solutions of magnesium sulfate given by rectum. In the first place, it is always extremely difficult to tell how much of any solution is absorbed by rectum; furthermore, if continued over a period of time, its use causes a proctitis which may make the patient so restless and irritable that his further management becomes more burdensome. No mention has been made of the use of mercuric derivatives in reducing increased intracranial pressure because they do not seem to have any great advantage over the use of glucose which is easy to obtain, easy to dilute, and relatively harmless to administer. How can I resist saying at this juncture something which may surprise and bother you, and that is that I would not be able to say definitely whether I ever saved a life by the use of intravenous glucose solution in cases of head injury.

### Class 1a or 3a

## THE MANAGEMENT OF INJURY TO THE CRANIAL BONES

### Classification of Injuries:

- A. Linear fracture, simple or compound.
- B. Depressed fracture, simple or compound.
- C. Basal fracture with escape of spinal fluid.
- D. Fracture through the frontal air sinus.

Conservatism should also be the underlying principle of treatment of injuries to the cranial bones, in other words, the true skull fracture. There appears to have been a progressive trend toward doing less and less immediately after injury and during the so-called period of emergency. Let me repeat, and perhaps ad nauseam, that no attempt should be made to deal with any of these conditions until collapse, or rather traumatic shock, has passed off. As a rule, it is our routine not to take x-ray pictures of the skull until the patient's condition permits his being moved to the x-ray room, and that is usually about the time he is ready to go home. The pictures are often taken mainly for medicolegal purposes. The treatment of a linear fracture is nil. In the case of a compound fracture, the scalp wound must be properly and immediately repaired, thus converting it into a simple wound. The proper care of a scalp wound cannot be gone into here, but I might say that it is important to shave sufficient hair around the margins of the wound, perhaps an inch or two, and to clean the wound thoroughly with soap and water. Meanwhile, the operator and his helpers wear masks. When the wound is cleaned, one or even two loosely tied sutures will be sufficient. This should be done with ordinary sterile precautions and at the same time the bone underlying the defect should be felt with the gloved finger or lightly probed with a sterile probe to make sure that there is no defect in the cranial bone underlying the scalp wound.

With regard to depressed fractures, the question whether or not they should be elevated is still raging. Some individuals state categorically that all depressed fractures should be elevated. I am unable to agree with this. The question in my mind as to whether or not a fracture should be elevated depends entirely upon the degree of depression and the area over which the depression occurs. It is true that the x-ray picture of a depressed skull fracture frequently does not indicate the degree of depression found at operation. The x-ray picture often gives the impression that the depression is not as great as it is. In very young children it may not be necessary to elevate

a depressed fracture, but in adults the degree of depression and the area over which the depression occurs is a matter for consideration. If there are any neurologic signs referable to a depression, it should be elevated. The problem of compound depressed fractures is somewhat different and, here again, there are different views with regard to the proper treatment. Some surgeons believe that these patients should have the compound depressed fracture operated on as soon as collapse has passed off. In fact, one might say that that is the general opinion in dealing with these patients. I, on the other hand, am conservative in this regard and in other regards in this matter, and it depends entirely on the type and characteristics of the compound fracture whether, in my opinion, the operation should be undertaken in the first few hours. As long as no spinal fluid escapes from the wound, and as long as a pulsating brain is not seen, it appears to me that the question of dealing with a fracture can wait until a formal operation can be done in a clean field; in other words, after a lapse of three weeks or a month following the primary suture of the scalp incision. If the compound fracture is operated on immediately, and depressed fragments are removed which have been previously wedged down into the surface of the dura, the subarachnoid space may immediately come in contact with the dirty wound, and to my mind, this, at all costs, must be avoided. Consequently, it appears safer to wait until the scalp wound is healed, and the depression of the bone and the damage to the brain can be dealt with at a more formal procedure. These views may change as more is learned about the bacteriology of wounds of the skull and the scalp. However, if spinal fluid is seen escaping and there is a comminution of the bones of the skull, as well as a pulsating brain, there is no alternative but to operate immediately after collapse has passed off. In this connection, it should be pointed out that great care should be taken not to infect such a wound with the bacteria from the nose and throat of the operator or his assistants. In other words, the first dressing of such a wound should be done, if possible, in a clean room with all the attendants masked. To discuss this subject thoroughly is impossible at this point, and I have merely indicated certain lines which I have found useful in dealing with them. As a matter of fact, I merely mention fractures to complete the discussion; my principal idea is to discuss only the closed head injuries. Furthermore, I am giving advice intended for the general practitioner; well trained neurosurgical teams might deal with some of these things in a different way. The attempt is to think

of the greatest safety to the greatest number under existing circumstances.

A much more common problem is the basal skull fracture in which blood and spinal fluid escape either from the nose or from the ear. Very little of a therapeutic nature can be done for these patients except for postural drainage and the use of sulfonamides. The patient should be placed with the affected side down so that blood and spinal fluid may escape from the ear. The external auditory meatus should be kept clean with alcohol and a sterile dressing should be placed over it. The same is true, to some extent, of bleeding with escaping spinal fluid from the nose. As soon as such a patient is out of shock, he should be propped up, and the head should be placed in such a position that there is a free escape of spinal fluid and blood from the nose. The reason for this is that one wishes to avoid the possibility of spinal fluid escaping into the nose and there coming in contact with the heavily bacteria-laden nasal mucous membrane, and then, perhaps, be returned into the clean cranial cavity to cause meningitis. This postural drainage will assist materially in obtaining fewer and fewer cases of meningitis. As a matter of fact, this was proved on the ward at the County Hospital. Now that we have the sulfonamide drugs to assist us, the cases of meningitis from head injuries in which postural drainage and sulfonamide are combined should be very rare. Several years ago, before the sulfa drugs were used, postural drainage was found extremely effective and reduced the mortality rate from meningitis at least 75 per cent. This, of course, is not hard to understand for the reasons given.

In the case of a fracture through the frontal accessory air sinus, the same conditions hold true. Articles have been written in which immediate operation is advocated to repair the defect in the posterior wall of the frontal sinus and the dura of the anterior fossa which overlies it. Either I do not see similar cases or else the conservative treatment which I have employed is just as effective as the operative treatment because the hazard of meningitis has not been conspicuous in my cases. The object of the operative procedure is to close the defect. I think it is possible to close such a defect by using the brain as a tampon, and by putting the patient with his head downward and forward so that the brain covers up the slight tear in the dura and is made to adhere to the surface of the frontal sinus. Whether or not such a patient will come out later on with epileptic seizures, is impossible for me to state at this point. It seems likely, however, that the possibility following an intracranial operation seems almost as great as it would



be in the case of using the brain as a tampon. There are other factors against the operation. In the first place, it takes a very experienced, capable, neurologic surgeon to perform such a procedure; in the second place, it is hazardous, in my opinion, to operate on a patient in the condition in which these patients are often found; and, third, the other method which I propose is at least effective as far as the life of the patient is concerned. Whether the sequelae are different in a patient treated in the manner suggested by me, or by open operation, is a matter which time alone can tell. Every effort must be bent toward seeing that the frontal sinus drains out into the nose. In the event there is any suspicion that it does not drain out to the nose, I believe it would be justifiable to open the anterior wall of the sinus and drain it. Whether or not any such procedure is adopted, the use of sulfonamides is indicated as a prophylactic measure in these cases.

#### Class 1a or 3a

#### THE MANAGEMENT OF THE PATIENT DEVELOPING NEW SYMPTOMS

- A. Extradural hemorrhage.
- B. Contusion with local spreading edema.
- C. So-called acute subdural hematoma.
- D. Subcortical hemorrhage.
- E. Meningitis.

With regard to extradural hemorrhage, this is a subject by itself and only brief mention can be made of it here. Extradural hemorrhage may occur, with or without lucid interval, with or without blood in the spinal fluid, with or without skull fracture, and with or without serious brain damage. In order to keep this rather rare symptom complex in your mind, one might start off by saying that at least 50 per cent of them are not diagnosed, and this is often due to the fact that they do not have the typical history with a lucid interval. It would appear that many of these patients with extradural hemorrhages suffer severe concomitant brain damage or even mild concomitant brain damage so that they remain unconscious during the period in which the lucid interval could be expected. Under these circumstances, the question of whether or not the patient moves his extremities when admitted, and his state of consciousness when admitted, are of the utmost importance. The most reliable signs for the diagnosis of extradural hemorrhage are deepening coma with gradually developing hemiparesis and hemiplegia. With a dilated pupil on the same side as the injury, the diagnosis is almost certain. However, a dilated pupil occurred in only half the cases which I investigated. If there is

any doubt about the question of extradural hemorrhage, one of the rules of not moving the patient should be disobeyed. Either the patient should be moved to the x-ray machine, or a portable machine used to make a roentgenogram of the skull in search of fractures, because by far the vast majority of extradural hemorrhages underlie a linear fracture. In that case, the fracture line may be seen to pass over the meningeal vessels or even over one of the extradural venous sinuses, and in that case "x" marks the spot, so to speak, and endeavor should be made in an operative intervention to place the incision somewhere in that region. It is far safer to put a burr hole in the unconscious patient under local anesthesia than it is to observe the extradural hemorrhage at the post-mortem table.

Sometimes a contusion near the motor area produces a similar picture. The characteristic difference is that although the patient develops a progressive weakness on one side with, perhaps, an aphasia, consciousness is not materially affected, thus ruling out a large expanding lesion. Cases of this kind, contusion with spreading edema, as I call them, are sometimes very difficult to differentiate from an extradural hemorrhage. Recently I was called to see a patient who had sustained an injury thirty-six hours before. When admitted to the hospital, he was dazed, moved all his extremities, and conversed rationally with the attending surgeon. The next morning he seemed somewhat confused, his right hand was very weak, and he had difficulty in talking. By afternoon his right hand was almost completely paralyzed and he could not speak at all. When I saw him, his condition was very much as described. He could be easily aroused, and it was obvious that he wished to speak, but he could not repeat his own name or make any intelligible sounds. He moved his right hand very poorly. The right leg moved very sluggishly when severely pinched, and it was obvious that he felt pain by the grimace which he made. There was no weakness of the face. The spinal puncture had been done in the morning and the fluid was under somewhat increased pressure and was blood tinged. There were some misgivings on the part of the attending surgeon relative to exploration for extradural hemorrhage. The diagnosis was made of contusion over the convexity of the left hemisphere with spreading edema. Operation was not advised. After three or four more days of remaining in this condition, the patient gradually made an uneventful recovery.

Sometimes, also, localizing signs will develop from what is called the acute subdural hematoma. In the presence of such localizing signs, associated with deepening coma, one can only resort to burr

holes or to a burr hole placed in conformity with neurologic signs found. Some surprise may be felt that no extradural bleeding is found. However, if the dura is tense and not pulsating, a small incision may reveal that immediately underlying the burr hole there is a large collection of clotted blood under increased pressure. The removal of this may materially benefit the patient. In some cases a similar picture may develop in a patient having a traumatic subcortical hemorrhage. These are very much more difficult to deal with, however, and fall properly into the province of a neurologic surgeon. It is important to bear in mind that when there are localizing signs which are absolutely definite in character, such as gradually developing hemiplegia, with coma, a burr hole under local anesthesia is advisable, but definite, localizing signs and not pseudo or supposed localizing signs must be present. Neurologic signs may be hard to assess, since in head injuries the nervous system suffers multiple injuries and each damaged region may modify the final picture. The only time that any operative interference should be employed is when there is a picture similar to an extradural hemorrhage, deepening coma with perhaps a dilated pupil, and weakness on the opposite side of the body. Unless such clear signs as these are present, it would be wiser in the case of the average physician or surgeon to treat the patient conservatively.

#### Class 1a or 3a

#### THE PATIENT WITH SEQUELAE

- A. Chronic subdural hematoma.
- B. Posttraumatic epilepsy.
- C. Posttraumatic syndrome.
- D. Cranial nerve palsies.
- E. Rhinorrhea or otorrhea.
- F. Brain abscess.
- G. Psychoneuroses.

The patients with sequelae will merely be listed, since it is out of the province of this paper to discuss all the possible sequelae of injury to the head. However, I cannot close without saying at least a word or two about the chronic subdural hematoma which is responsible for many unexpected deaths after a head injury. The only thing I really know about a chronic subdural hematoma is that I may not be able to diagnose it. As a rule, however, such a patient receives moderately severe injuries with unconsciousness, blood in the spinal fluid, and sometimes a fracture of a cranial bone. He recovers from shock promptly and recovers consciousness in a few hours and is then submitted

to treatment in bed. During his stay in bed he frequently complains of headache and has various neurologic signs, perhaps like a partial third nerve palsy or some numbness in one hand, or some other complaint. About three weeks after the injury when he is ready to go home, he begins to show signs of not being properly conscious all the time. He is hard to rouse at times. Closer examination of such a patient may reveal that a Babinski sign has developed on one side; the reflexes are somewhat more active on that side; the patient complains of headache; when the fundi are examined, there may be some blurring of the optic disks; the spinal fluid is under increased pressure and it is yellow. Close watch is maintained over the patient and it is definitely noticed that he has a tendency to become more and more stuporous and the neurologic signs to become more accentuated. Under these circumstances, the possibility of a chronic subdural hematoma must immediately be considered. These subdural hematomas are rather frequent; they usually occur over the parietal eminences, and they can be evacuated by burr holes under local anesthesia on both sides. The reason for this is that about half the subdural hematomas are bilateral. If a hematoma is present, the dura will present a bottle bluish appearance and it will not pulsate. When the dura is opened, the outer membrane of the hematoma will present in the defect. This should be opened by Hilton's method with a hemostat. Dark fluid material will run out. In the majority of cases, when the fluid has completely run out, no further treatment is necessary. The difficulty may arise if the brain does not expand into the space previously occupied by the subdural hematoma. These patients should be treated posturally by placing them with the affected side down, and they should be given large quantities of isotonic fluid in an attempt to swell the brain. I realize that the discussion of the complications of head injuries is very meager, but the main object was to mention the immediate treatment of the average case of head injury brought under your care.

In conclusion, I will say that watchful conservatism is the idea. All active treatment should be carried out with a certain object in mind and with an understanding of the effects which such treatment will have on the brain. In addition, an attempt should be made to have a visual impression of the underlying pathologic process which prompts the selection of a particular method of treatment.

#### REFERENCES

1. Scott, W. W.: Physiology of concussion. *Arch. Neurol. & Psychiat.*, xliii:270-283 (February) 1940.
2. Walker, A. E., Kolbros, J. J., and Case, T. J.: Physiological basis of concussion. *Jour. Neurosurg.*, xi:103-116, 1944.



## CONTINUOUS CAUDAL ANESTHESIA

DAVID WALL, M.D., Ames

Since the introduction of continuous caudal anesthesia into the field of obstetrics, many data have been presented concerning its advantages, disadvantages, and dangers. All other reports published to date have come from teaching hospitals or from metropolitan obstetric services and a majority of the authors of these reports have concluded that caudal anesthesia is not a safe procedure for general practice.

The present report is made because it represents work done in a small American city with hospital facilities which could be duplicated in hundreds of cities in the United States. It is believed that the author's experience with caudal anesthesia may be of some value to physicians who devote considerable time to obstetrics but who do not confine their practice entirely to that field.

The author practices in a town of 14,000 and is associated with three other physicians. Ninety-five per cent of the obstetric work of the office is done by him, and in addition he does part of the general surgical and medical practice. All deliveries are made in the municipal hospital which is one of seventy-five beds with eighteen obstetric beds and twenty bassinets.

The writer's training for caudal anesthesia consisted of a few days spent in one of the large, midwest obstetric centers where he observed several such anesthetics being given and talked with the doctors giving them and with the originators of the technic of continuous administration. Literature on the subject has been carefully followed and reports by authors using caudal anesthesia prior to the advent of the continuous method have been studied.

During the past year, 250 patients were delivered and for 100 of these caudal anesthesia was elected. The following criteria were used in selecting these 100 patients: (1) A palpable caudal notch revealed on previous examination, with no excessive fat pads or discernible abnormalities in bony structure. (2) No apparent disproportion between the size of the baby and the pelvis. (3) Evidence of active labor and approximately three fingers dilatation before initiating caudal anesthesia. (4) A patient of stable personality and with desire for pain relief during labor without unconsciousness or subsequent amnesia. (5) No past history of sensitivity to local anesthetic drugs.

Details in regard to the 100 patients are given in the accompanying table.

TABLE I  
SUMMARY OF 100 CONTINUOUS CAUDAL ANESTHETICS  
(OF 250 DELIVERIES GIVEN OVER ONE  
YEAR PERIOD)

1. <i>Parity</i>	
62 primiparas	
30 para 2	
6 para 3	
2 para 4	
2. <i>Presentations</i>	
73 anterior occiput	
15 posterior occiput	
10 transverse occiput	
2 breech	
3. <i>Duration of anesthetic</i>	
Average duration—2 hours	
Longest duration—7 hours	
Shortest duration—20 minutes	
(Largest amount metycaine 280 cubic centimeters over 7 hour period)	
4. <i>Methods of delivery</i>	
1 cesarean section (low)	
14 spontaneous deliveries	
2 breech deliveries—1 footling—1 frank breech	
81 low forceps	
2 mid forceps	
(64 episiotomies with repair)	
5. <i>Results (anesthesia)</i>	
64 excellent results	
21 good results	
15 failures	
85 satisfactory	
(No maternal or fetal mortality or serious complications)	
6. <i>Analysis of failure</i>	
13 inability to enter sacral canal	
2 punctures through dura with spinal fluid obtained which contraindicated the method.	

Mastery of the technic of caudal puncture is the most important single step in the successful use of this form of anesthesia. Of the fifteen cases which are classified in the table as failures, thirteen were due to inability to enter the caudal canal. After receiving initial instructions and observing the method in the hands of others, perfection of one's own technic comes only with practice. Experience with the method makes it simpler to enter the caudal canal and also improves judgment in selecting suitable sacra for puncture.

Our routine procedure is as follows: After labor is definitely established, the cervix partially effaced and dilated, and the descent of the presenting part is obvious, the patient is given three grains of one of the rapidly acting barbiturates. She is then observed constantly by the nurse in attendance and in approximately thirty minutes a rectal examination is done by the physician. If progress is satisfactory, caudal anesthesia is started and continued by the method outlined by Hingson and Edwards<sup>1</sup> with the exception that before each injection of 20 cubic centimeters of metycaine, an 8 cubic centimeter trial dose is given as suggested by Gready.<sup>2</sup> This is the best insurance against a massive subdural injection, which is the greatest

danger of the method. If the caudal puncture fails, or spinal fluid is obtained, an alternate plan is used, which consists of the rectal installation of 20 to 30 cubic centimeters of paraldehyde in oil. The paraldehyde and barbiturate seem to have a synergistic relationship and satisfactory analgesia is usually obtained.

Before each injection of metycaine, a rectal examination is made to determine progress and when dilatation is complete and the head is on the perineum, the caudal needle is removed and the patient is prepared for delivery. Throughout the period of caudal analgesia, it is advisable to have the patient remain on her side and turn over only with assistance. This has proved to be no hardship, since most patients are drowsy from their previous medication and when the severe pains of labor are eliminated they usually sleep lightly.

Low forceps delivery, with episiotomy when indicated, is employed as a rule. Spontaneous deliveries occurred in 14 per cent of this series. This low incidence is explained by the fact that the normal bearing down mechanism is a feeble effort without the stimulation of a distended perineum. In spite of a completely relaxed perineum, lacerations seem to be just as frequent as with other anesthetics, and episiotomies are often indicated. Posterior or transverse position of the occiput are easily dealt with by either manual rotation or the Scanzoni maneuver. Both seem to be more easily done under caudal than under other anesthetics, and with less danger to the mother and baby. The babies born in this series usually cried when the head was delivered, and in the entire series no baby needed any measure of resuscitation.

It is important that the obstetrician know that continuous caudal anesthesia alters all three stages of labor. The first stage is usually shortened, due probably to the resultant relaxation of cervical musculature. The second stage is lengthened, because the voluntary muscles of expulsion are poorly and ineffectually employed. The third stage is shortened markedly, because with the delivery of the baby the uterus remains contracted and the placenta separates with this contraction and should be delivered immediately.

One particularly appreciates caudal anesthesia when there is a perineal repair to be done. Episiotomies can be performed quickly and easily since there is little bleeding after delivery of the placenta, although no oxytocic drug has been used. The perineum is completely relaxed, easily retracted, and tissue approximation is easily obtained.

Caudal anesthetics of four hours or less are more successful than those continued over a long period, more successful from the viewpoint of the

patient's comfort and the apparent safety of the method. When the anesthesia is continued well over four hours, some patients become restless, appear to be in mild shock and often complain of numbness and tingling in their lower extremities. If uterine contractions are infrequent, irregular, or of poor quality and a long first stage of labor is expected, it is the author's opinion that the patient is better handled by conventional methods.

Caudal anesthesia seems to be more appreciated and hence more successful in multiparas than in primiparas. The multiparas realize, by comparison with previous labor, that the anesthetic offers greatly increased comfort and therefore they are very cooperative. Primiparas often become bored and complain of small inconveniences, such as remaining in one position for a long time and the unpleasant sensation of numbness in their legs.

The patients usually complain bitterly of perineal pain when the anesthetic wears off. They seem to have more of this type of pain than do patients delivered under other types of anesthesia. The writer has found it an excellent procedure to give morphine, grains  $\frac{1}{4}$ , after delivery before the patient leaves the delivery room. This affords a more gradual return of sensation with elimination of the sudden change from complete absence of pain to pain.

With caudal anesthesia the patient's confidence and cooperation are even more important than with other forms of anesthesia. Before deciding on the use of this method, the patient should be told the type of relief that is achieved. She should know that she will be awake and will be aware of what is going on, but that she should feel no serious pain. Some patients do not want this. They prefer an analgesic which will confer subsequent amnesia for the experience of labor and a light general anesthetic for delivery. It should be explained to each patient that caudal anesthesia is not the miracle worker which laymen have been led to believe by popular articles on the subject, and that the mechanism of labor and delivery still represents a major maternal adjustment.

At every meeting of physicians where caudal anesthesia has been discussed, the general opinion has been that the method is too time-consuming for use in general practice. This has not been our experience, since we feel that any patient in active progressive labor needs the close attention of the obstetrician. Of course for the physician who considers the nurse's judgment poor, if he is called to the hospital thirty minutes before delivery rather than ten minutes, the method under discussion is out of the question.

In conclusion, the author believes that caudal anesthesia is an established procedure; that it can



be a safe and satisfactory method of anesthesia in the hands of a conscientious physician who does considerable obstetrics. It has been applicable to one out of two and one-half patients in the past year and has been satisfactory in 85 per cent of them. Caudal anesthesia alters all three stages of labor; however, the management of patients with this method requires little more of an obstetrician's time than do other methods of analgesia. Good obstetrics requires close attendance by the obstetrician when the patient is in active labor under any analgesia.

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#### REFERENCES

1. Hingson, R. A., and Edwards, W. B.: Continuous caudal analgesia in obstetrics. *Jour. Am. Med. Assn.*, cxxi:225-229 (January 23) 1943.
2. Gready, T. G., Jr.: Some complications of caudal anesthesia and their management. *Jour. Am. Med. Assn.*, cxxiii:671-675 (November 13) 1943.

### A MENTAL HYGIENE PROGRAM FOR IOWA\*

MARCEL HEIMAN, M.D., New York City†

In August, 1943, the life of Clifford Beers ended. It was a life devoted to the improvement of mental health. Clifford Beers was a young man when he became mentally ill and for years he struggled to regain his health. After he succeeded, he wrote the now classic book, "The Mind That Found Itself." His personal experiences made him recognize the need for a program of prevention of mental illness. About thirty-five years ago he became the father of an organization which is known today as "The National Committee for Mental Hygiene." It began as a small group but gradually extended to a nation-wide organization and finally the idea spread all over the world.

Clifford Beers was a layman. Nevertheless the medical profession, and those concerned with mental health in particular, honored his far-reaching and keen mind and his courage and perseverance by making him permanent honorary president of The National Committee of Mental Hygiene. I wish to stress this fact in order to demonstrate the tendency of the mental hygiene movement to reach into the intelligent and progressive groups of the public and secure their participation in the organization.

What is mental hygiene? It is aimed at the conservation of mental health and the prevention and control of mental illness. To be useful such

a program must be based upon the cooperation of all those who are active and interested in the upbringing of normal individuals. Every parent should be a prospective member of such an organization. Every teacher should know the fundamental principles governing the normal functioning of the mind. It is up to the psychologically trained educator, the psychologist, and the psychiatrist to lead the rest, to direct them, and to teach them.

It is this latter part of the program, the teaching, which is necessary to acquaint the public with modern ideas regarding a proper understanding of normal and abnormal attitudes in our children, adolescents, and grownups. It is the teaching which may eventually lift the dimness which surrounds everything connected with mental illness. Superstition and lack of knowledge are responsible for this medieval attitude which considers the mentally ill persons as social outcasts. This attitude needs to be studied and carefully analyzed in order to understand the impediment it represents for a proper and scientific treatment of mentally ill individuals.

The utter hopelessness which is associated in the minds of people with the onset of a mental disease in a friend or relative, the intense fear of becoming mentally ill, so to say, by contact with a mental patient can, in its intense emotional manifestation, be compared with our traditional attitude toward death. This comparison is more than a superficial one. Various customs in connection with the death of a person can partly be explained as originating in a fear that the dead person might take us with him. Various disguises are used that the dead person, however beloved he was, may never find us again, a custom which finds its manifestations in our mourning clothes. Everyone is familiar with the rich folklore in connection with the resting place of the dead, the cemetery, from which no return is possible. You can see the similarity. The mentally ill person is the living dead, the mental hospital the place from which no return can be expected.

If the prejudice connected with mental hospitals would find its explanation in the reaction of mentally ill individuals following the hospitalization, this prejudice would be understandable. However, exactly the opposite is true. Former patients maintain a friendly attitude toward the hospital and are helpful to spread their beliefs among friends. Therefore, it seems that it is rather the lack of knowledge or the lack of proper dissemination of knowledge which accounts for the taboo which still surrounds the mental hospital. There are several reasons why popular belief so steadfastly clings to the conception that a one-way road

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†Former Clinical Director, Mt. Pleasant State Hospital.

connects the mental hospital with the community, and why the lay person places the mental hospital at the dead end of that road.

It shall be our task by planned education of parents, teachers, and law enforcing authorities to gradually change this pernicious attitude. This is a difficult task. Everyone is aware of the power which words have due to a certain meaning associated with them for centuries. It is this power which kept science until recently from discovering the facts hidden behind words. For almost two thousand years persons mentally ill were considered to be possessed by devilish spirits, and according to this belief they were either burned to death or chained for life. It was considered renaissance of the mind when these beliefs changed into one where mental illness was considered as a curse, a fate from which no escape was possible. It has been in recent years only that those interested in the subject have gained understanding of the causes, kinds, and possible treatment for the various mental disorders. It is now the task of those who are in possession of this knowledge to spread the information within every community. This requires first of all that the meaning of despair and hopelessness be detached from everything connected with mental illness. In order to clarify the people's conception we must overcome their fears and bring matters of mental illness closer to them. Therefore, we must assimilate mental illness in every respect to physical illness. The roads leading to mental hospitals must be made as easily accessible as are the roads into general hospitals. There must be sufficiently wide avenues leading out from the mental hospital back to community life. The mental hospital must be moved from its dead-end position on its one-way road to a place where it is connected by many links with the community, links of sympathy, of assistance, of protection, and of rehabilitation.

The problem of placing the mentally ill on the same basis as the physically ill person is a two-fold one. The mentally ill patient represents an individual problem as well as a problem of and to the environment in which he lives. This latter aspect of mental illness; namely, the extension into the patient's environment, is the main difference between physical and mental illness and has been mainly responsible for many misunderstandings in regard to mental illness. This is shown in our various laws regulating the commitment to mental hospitals. As soon as the idea is established that we are dealing with a disease which requires medical care and hospitalization in the first place, supervision and protection in the second place, and punishment under no circumstances, it is clear to an objective observer that the various laws men-

tioned are superfluous. If the medical aspect of mental diseases would be stressed more and the legal aspect reduced to its necessary requirement, the sheriff's office and the county jail would not need to be used for their such humiliating assistance in connection with admissions to mental hospitals.

Experiences in other states seem to indicate that the legal restrictions governing the admission to mental hospitals are loosened as soon as the whole problem of mental illnesses has become the problem of the community rather than of the individual. The assistance of the policemen or "of the law" for the commitment of a mental patient to a hospital should be reserved for emergency situations and should not be called for the routine commitment. An approximation of the legal and medical aspects of hospitalization for mental illness will be necessary to spare the family as well as the patient from degrading and unnecessary experiences. It is a difficult task to explain to a patient who has committed no crime why the sheriff had to accompany him to the hospital. Voluntary admission should be made possible whenever indicated. This whole problem was brought to my attention recently by the admission of a farmer's wife. This young woman began to ponder over the possibility of being infected from her cattle. She then became preoccupied with this idea and following a transitory state of excitement her husband decided to have her examined at a state hospital and went to the county seat to have the proper papers made out. Because the papers were not to be completed until the next day and the husband was afraid to keep her at home, the sheriff proceeded to apprehend that woman in her home and take her to the county jail. In consequence, she developed an extreme terror reaction which the authorities of the county jail were in no position to handle properly. If this patient could have been admitted immediately on a voluntary basis, she could have been spared a severe mental shock.

While the patient remains at the hospital, there is inevitably a complete disruption of his professional, social, and family relationship. At first the hospital physician is the only connecting link with the outside world. Consequently, it is the duty of the physician to establish gradually such connections as appear to be of benefit for the patient. In his work with the patient and in his efforts to understand the background of the patient, complete and objective information regarding the patient in his relationship to his environment is a prerequisite. To obtain this information, to compile the many facts coming from various sources, calls for the assistance of a person trained and experienced in this type of work. The psy-



chiatric social worker has proved of real help in carrying out the extramural, the preliminary, and the follow-up studies connected with a case.

The difficulties of providing adequate preventative mental care for the public become evident if we consider the distribution of psychiatrically trained physicians in a state like Iowa. Due to the fact that the members of this specialty need a densely populated place to succeed in private practice, the majority of physicians doing psychiatric work only are located in mental hospitals—private, state, and federal. Therefore, the majority of mental patients and individuals showing symptoms indicating the possible development into a mental illness are seen by general practitioners and, of course, by a group of quack competitors. The psychiatrist sees the patient only after he is admitted into the hospital, separated from his environment. This is a paradoxical situation. We need to supply the public with facilities through which it should not be too difficult to obtain psychiatric assistance. This, too, is part of the program of integrating the mental hospital with the community. This important consideration must be brought out from the clouds of obsolete thinking which still surround it.

Of equal or even more importance for the public are similar considerations regarding criminality in general and delinquency in particular. During the past forty-five years it has been shown that environmental influences are of great importance, especially in regard to first offenders. Recent studies of incorrigible types of criminals, however, result in the observation that many of these show organic brain changes detectable, for instance, by a record of brain waves as shown by an electro-mechanical device known as the electro-encephalograph. This would indicate that the recognition and segregation of first offenders might be instrumental in the prevention of crime. It is an acknowledged fact that the lower the living standards the more rigidly the law is applied. For this reason it seems that attention should be directed first toward groups living in marginal circumstances.

A third group which requires public interest includes the feeble-minded persons. It is true that we will find some of them among those mentioned before; namely, among the mentally ill and the criminal offenders. However, for the sake of a clear distinction this group needs to be considered separately. It is surprising what accomplishments can be obtained by those whose inadequate mental development has been recognized as cause for a poor adaptation. For many years we were striving for reliable tests to measure intelligence. This being accomplished, it seems that the intelligence quotient as such is less important than the practi-

cal test as to the performance of the individual in life situations. For this reason the psychologist who has no or little practical experience is of limited help in finding a suitable environment for a mentally deficient person. The doubtful reliability of psychometric tests obtained even by experts in their fields can be noted frequently. One case which has been under my observation for some time might illustrate this. A girl, daughter of a veteran of the Spanish War, was placed in various foster homes until she was entered into an orphanage at the age of fifteen following an incident when she was apprehended for stealing. Following the routine psychometric test, which placed the patient in the level of high grade mental retardation, she was transferred to an institution for feeble-minded persons where the psychometric test was repeated twice, the examiner arriving at the same classification. Her intelligence quotient was between 63 and 66 at an age when the patient should have reached adult intelligence. About one year later the patient was admitted to the hospital at Mt. Pleasant following minor difficulties. In the hospital she received active psychotherapy as well as occupational therapy, to which for a long time she responded only with stubborn seclusiveness; however, her I.Q. was found to be at 80 or possibly above indicating a borderline normal intelligence. The patient eventually made a perfect adjustment in the hospital, the only doubtful aberration of a normally developed personality being that of a vague homosexual trend. The outlook for this patient was not favorable since we felt the patient needed most the wholesome influence of a home environment which so far she never had experienced. Several months ago, as a part of a long-range plan for her, she was transferred to the County Home; and understanding county officials found a place for her to take charge of a home with three children, both parents being absent during the day on war work. The trust placed in the patient, together with the sudden economic independence and the kindness with which she was accepted by the family, may be hopefully regarded as the final step in her rehabilitation. It is believed that painful experiences over a period of several years might have been spared for this girl if somebody with proper understanding and adequate facilities at his disposal had been called upon at the time when this patient first became delinquent.

Mental illness, feeble-mindedness, and delinquency with all the differences regarding cause and clinical manifestations have one thing in common; the individual on account of his difficulties may become a public liability. It is economically not sound and humanly not advisable to dispose of

such individuals by waiting until great social damage forces them into the attention of public officials, and then to place them, with the idea of permanent segregation, into various hospitals and institutions. Whatever prevention can be achieved and whatever human material can be saved should be accomplished during the formative years of the school period when these persons are still in the stage of minor personality problems which may be correctable. It is more important to direct our attention to slowly progressing personality changes which easily may escape our attention than to an abnormal behavior which can be detected without any special training. For practical purposes, the selection of misfits in school without any further facilities for treatment or advice is of little avail. Teachers lose interest promptly if problem children are merely segregated and left within the same school system without the aid of continued special consultation and planning.

The history of psychiatry indicates that at first the sick person was the object of consideration. Later when thought was given to preventive psychiatry, the initial phase of mental disease was studied. Later on the personality of individuals showing a disposition to develop a mental illness was investigated and traced back to a possible personality trend in childhood. Most of the mental hygiene activities concerned with preventive psychiatry take place during the childhood and early adolescence when the first clouds appear announcing the possible later thunderstorm. However, preventive psychiatry has to go back still further. It is a common observation of every physician or worker dealing with psychiatric material to notice the abnormal personality found in the parents or other close relatives. Therefore, eugenic principles should be applied in all those cases where our present-day experience teaches us to expect a great percentage of inheritance of a disposition to develop mental illness or feeble-mindedness.

It should not be forgotten that whatever principles a preventive psychiatric program will propose, such principles will be the expression of certain concepts regarding psychiatry. For instance, if the prevalent concept is that of mental illness developing on a basis of childhood experiences or adverse environmental settings, the preventive progress will stop at the point of giving assistance to children. On the other hand, whenever the idea of heredity as cause for mental illness gains the majority of followers, eugenic principles might be considered just as important or possibly more so.

To be effective, any attempt to organize a state-wide organization aimed at a preventive program

of mental health requires the coordination of all local and state organizations already employed for that purpose as well as all those departments, officials, and members of the community interested professionally as well as privately in such an organization. The interest the various parties show will determine the possible good such an organization can do. The development of the organization itself is to a great part at least a financial matter, and either state or private funds or both must be available for the creation and maintenance of such an organization.

The parties interested in a mental hygiene program are: First, the state in respect to its institutions for the care of the mentally ill, defectives, and criminals; (The state will be interested in a sound program intended to find means and ways of selecting carefully the individuals to be admitted and of providing for a better rehabilitation for those already admitted. One should not expect, however, that even the best program will result immediately in a reduction of the population of the various institutions but that a conservative estimate will indicate a reduction in the long run.) second, all those in charge of and employed by the institutions whose work links with such program, the psychiatrically as well as the psychologically trained personnel and the officials of the correctional institutions; third, the state in its responsibility for the education of the public; fourth, all those individuals delegated with this responsibility and carrying out the educational program, among whom will be the county and city school systems, the principals and teachers; fifth, court officials, such as judges and attorneys who deal with delinquent persons and criminal youth; sixth, county and city social welfare agencies, among whom we will find a keen awareness of the need for a state-wide organization; and seventh, the public itself.

We are living in a time of emergency which will be followed by a period of upheaval accompanied by a tendency toward moral and ethical deterioration which is already noticeable. A great deal of preparatory work needs to be done to decide how such a program should be organized most effectively to fit the needs of this state. Therefore, it seems advisable at first to form a committee which should work out a plan of principles for such an organization. It is proposed that such a committee should combine representation of the following groups: Board of Control, Board of Health, Board of Education, the Court, the State Medical Society, the State Bar Association, Psychopathic Hospital, Mental and Feeble-minded Institutions, Correctional Institutions, the School System, the Welfare System, and the Public. After studying



the existing facilities in the various communities of the state, this committee should make its recommendations in due time.

We are standing at a crossroad regarding the manner in which the state and community discharge their duty toward the afflicted, indigent, and diseased individuals. The program which should be inaugurated will depend on those whose responsibility it is to plan far ahead in the future for better living.

## THE FINLEY HOSPITAL CLINICOPATHOLOGIC CONFERENCES

### THE CLINICAL DIAGNOSIS OF PERNICIOUS ANEMIA

FRANK P. McNAMARA, M.D., Dubuque

With the increasing importance of diagnostic laboratory and x-ray procedures there has gradually developed too great a dependence upon them on the part of many clinicians. Perhaps this could be better stated as too little reliance upon the clinician's skill in making a differential diagnosis based upon the history and physical findings. This is often true in the anemias where at times treatment by liver or other potent extracts or iron, considered specific remedies in pernicious and hypochromic anemia, respectively, are used in combination without making the necessary effort to reach a correct diagnosis.

While this tendency may not be important in some cases, in others where correct, intensive, and persistent treatment are demanded, too often it is lacking because an exact diagnosis was never made and therefore the treatment was carried out in a haphazard way. Furthermore, the earlier treatment in pernicious anemia is started the less the liability of permanent damage to the central nervous system. In addition, there is the matter of unnecessary expense to the patient who needlessly is given liver extract when all he requires is iron, or vice versa. Therefore, a review of the clinical features encountered in pernicious anemia seems worth while.

*Age and Sex:* Progressive pernicious anemia (primary anemia; Addison's anemia; Biermer's anemia) is chiefly a disease which occurs in middle life, the period from thirty-five to sixty-five years of age, and affects white men a little more frequently than women. In the past it was supposed that it did not occur in negroes, but this is erroneous. That the disease may occur also in younger individuals is attested by the studies of

Schwartz and Legere<sup>1</sup> at Cook County Hospital, Chicago, who in a short period of time found nine cases in women, five of whom were colored, under thirty-five years of age.

*General Symptoms:* The symptoms common to all forms of anemia are weakness, dyspnea, fatigability, loss of weight, and pallor. In pernicious anemia the pallor during a relapse is of a peculiar yellow or subicteric tint. Isaacs<sup>2</sup> states that patients with pernicious anemia have a certain body build which is rather characteristic. "They have a tendency to gray hair, and the change begins before the age of thirty years. Other members of the family note early graying of their hair. Our statistics showed a higher percentage of light hair and light colored eyes in the pernicious anemia patients and their relatives than in a control group of the same age and region. Patients with pernicious anemia tend to have long ears—as well as certain other characteristics more or less marked in different patients, such as a square, prominent jaw."

Isaacs lists the following symptoms in his series of 580 cases: Numbness, 81.2 per cent; tingling of fingers and toes, 74.3 per cent; shortness of breath, 64.3 per cent; symptoms referable to the stomach, 62.6 per cent; constipation, 54.3 per cent; palpitation, 49.3 per cent; edema, 43.9 per cent; loss of appetite, 43.9 per cent; difficulty in walking, 43.6 per cent; symptoms referable to the bladder, 35.0 per cent; dizziness, 27.9 per cent; poor memory, 26.8 per cent; diarrhea, 26.5 per cent; pain, 20.3 per cent; and stiffness, 12.2 per cent. Of these symptoms Heck<sup>3</sup> states that three separate symptoms of the body are involved: (1) The hematopoietic, (2) the gastro-intestinal, and (3) the central nervous system. We are principally concerned with the last two.

In pernicious anemia there is a generalized atrophy of the mucous membrane of the entire gastro-intestinal tract. Glossitis, which occurred in 73.3 per cent of Isaacs' series, is the most common manifestation of this change in the mucous membranes. While it may be mild and affect only the tip of the tongue, at times it is severe and involves the entire tongue as well as the mucous membrane of the mouth. It is more common in women than men. Atrophy of the papillae of the tongue is sometimes seen.

The symptoms referable to the rest of the gastro-intestinal tract are loss of appetite, constipation, or diarrhea, and are all probably due to a large extent to the atrophy of the mucous membranes. These vary in frequency but when present should make the clinician suspect the possibility of pernicious anemia as a causative factor. The gastric symptoms are often vague and are thought to

be due to achlorhydria, but as Heck has pointed out these symptoms are relieved by potent material while the achlorhydria is not. The absence of free hydrochloric acid in the gastric secretions of patients with pernicious anemia is constant and as far as known the free acid does not reappear, although the blood picture may be restored to normal by appropriate treatment. As Sturgis<sup>4</sup> says, "The presence of hydrochloric acid in the gastric secretions therefore should eliminate at once the diagnosis of Addisonian pernicious anemia. In the entire field of clinical medicine there is no diagnostic fact which can be stated with a greater degree of finality." Yet the writer has rarely been called upon for a gastric analysis in patients suspected of having pernicious anemia. Apparently many clinicians are unaware or have forgotten that complete achlorhydria constitutes the single, most reliable criterion for diagnosis. It is always present in pernicious anemia and persists even after all other evidences of the disease have been overcome by adequate treatment. As Kracke<sup>5</sup> states, "There should be absence of free hydrochloric even on stimulation with histamine." As far as known the achlorhydria antedates the detection of the anemia by years in most cases.

The symptoms referable to the central nervous system are important since in one-fourth of the patients they are the first to appear. They indicate degeneration of the lateral and posterior columns of the spinal cord as well as of the peripheral nerves. Castle and Minott<sup>6</sup> describe them as follows: "In the majority of patients the symptoms of neural involvement are confined to slight disorders of sensation, persistent and usually symmetrical numbness and tingling of the hands and feet. Among the earliest of the objective signs is diminution of the vibration sense at the ankles, usually but not always symmetrical. The development of a marked spastic ataxia indicates degeneration of the lateral and posterior columns of the spinal cord. When the former tracts are particularly involved, spastic gait, increased reflexes and positive Babinski signs are usually present; with lesions of the latter tracts, loss of vibration and position sense and ataxia appear. Girdle sensations occur but lightning pains, girdle pains and abdominal crises are uncommon. Due to peripheral nerve involvement, stocking hypesthesia (decreased sensation), or anesthesia may occur. Occasionally hyperesthesia (increased sensation) of the soles of the feet may be very marked. Disturbance of the sensation of heat and cold is unusual. Finally absent or diminished reflexes with involvement of the sphincters of bladder and rectum, contractures and decubitus result in the advanced clinical picture."

According to Kracke, symptoms of changes in the special senses are seldom seen. Optic atrophy occurs rarely and the disturbances in vision and auditory sense result from anemia or retinal hemorrhages. Mental symptoms are variable and include irritability, restlessness, mild depression, confusion, delusions, hallucinations, and maniacal outbursts. Dizziness and tinnitus result from circulatory weakness secondary to the anemia. Heck states that about 4 per cent of the patients who have pernicious anemia are reported to have cerebral manifestations. He also states, however, that peripheral neuritis is by far the most common type of involvement. Many of his patients complained of coldness of the extremities and often sat with their legs covered by blankets even in warm weather.

*Physical Examination:* Obviously the changes to be noted upon physical examination will depend on the stage, duration, and severity of the disease. In many patients who have received sporadic treatment only by a most painstaking examination will evidence of the disease be manifest. Usually the patients appear well nourished, but loss of weight can be deduced upon questioning. The characteristic pallor and lemon-yellow tint of the skin and sclera is seen only in severe cases. The mouth may show widespread glossitis or only a slight atrophy may be discerned on careful observation. The neck, chest, and abdomen are usually negative. The spleen may or may not be palpable. In severe and prolonged cases in which the patients have not had adequate treatment, the deep reflexes, Babinski's sign and ataxia are present and indicate marked degeneration of the spinal cord. In the type case usually encountered the deep reflexes are unaffected. Heck believes that the neurologic examination with the use of the tuning fork for testing the sense of vibration is most important. "Diminution in sense of vibration as tested over the malleoli, tibiae and anterosuperior spines of the ilia is the rule if neurologic involvement has occurred."

*Laboratory Diagnosis:* Characteristically, the blood picture in pernicious anemia in relapse shows the number of red blood cells markedly reduced while the hemoglobin is relatively high. Thus the color index is above one. The leukocytes are reduced unless infection is present and the reduction is most marked in the neutrophils. The reticulocytes are low but the platelets are normal in number and quality. The icterus index is moderately elevated. Studies of blood smears show a marked degree of anisocytosis and poikilocytosis with a high proportion of deep staining macrocytes. The foregoing blood picture is not often seen in modern times and the diagnosis of pernicious anemia from



the blood examination alone is difficult if not impossible. All the facts derived from the clinical history, the physical examination, the gastric analysis after the administration of histamine or a suitable test meal, and the response of the reticulocytes to the administration of an adequate dosage of liver or other potent extract, are usually required to reach a correct diagnosis.

## REFERENCES

1. Schwartz, Steven O., and Legere, Helen: Atypical pernicious anemia of young adults. *Am. Jour. Med. Sc.*, cvii:1-11 (July) 1943.
2. Isaacs, Raphael: Diagnosis and treatment of pernicious anemia. *Jour. Indiana Med. Assn.*, xxxii:607-610 (November) 1939.
3. Heck, Frank J.: Differential diagnosis of macrocytic and iron deficiency anemias exclusive of hematologic findings. *Jour. Omaha Mid-West Clin. Soc.*, ii:1-8 (January) 1941.
4. Sturgis, Cyrus C.: Remarks on differential diagnosis and treatment of pernicious anemia. *Bull. New York Acad. Med.*, xiv:715-724 (December) 1938.
5. Kracke, Roy R.: Diseases of the Blood and Atlas of Hematology; second edition. J. B. Lippincott Company, Philadelphia, 1941.
6. Castle, W. B., and Minott, G. R.: Pathologic Physiology and Clinical Description of the Anemias. Oxford University Press, New York, 1936.
7. Neal, M. Pinson: Diagnosis of pernicious anemia. *Jour. Missouri Med. Assn.*, xxxviii:316-320 (September) 1941.
8. Smith, Wm. A.: Neurological symptoms of pernicious anemia. *Jour. Med. Assn. Georgia*, xx:304-309 (August) 1931.
9. Skoog, A. L.: Serological manifestations of pernicious anemia. *Jour. Am. Med. Assn.*, lxxxvii:1957-1960 (December 11) 1926.
10. Various Authors: Symposium on the Blood. Univ. of Wisconsin Press, Madison, 1939.

#### OFFICERS ELECTED AT ANNUAL MEETING OF THE STATE SOCIETY OF IOWA MEDICAL WOMEN

The annual meeting of the State Society of Iowa Medical Women was held April 20 at Younkers Tea Room in Des Moines. Members presented brief reports concerning their work.

The following officers were elected: Dr. Erma Smith of Ames, President-elect; Dr. Jeannette Jongewaard of Jefferson, vice president; Dr. Ruth E. Church of Washington, secretary; and Dr. Edna Sexsmith-Harper of Greenfield, treasurer. Dr. Helen Johnston of Des Moines was installed as president, having been named president-elect at the meeting last year.

#### FIFTY YEAR CLUB

The following doctors have become members of the Fifty Year Club because of fifty years' practice of medicine: Ernest M. Adams of Central City, James A. Bisgard of Harlan, Henry A. Dittmer and John A. May of Manchester, Frank W. Mills of Ottumwa, James B. Miner, Sr., of Charles City, Wesley J. Morrison of Cedar Rapids, Franklin C. Smith of Mount Ayr, Richard H. Stafford of Sumner and Harry L. Stevens of Ottumwa. The State Society is proud of their achievement and welcomes them to membership in the Fifty Year Club. They will receive pins and letters in the near future.

If there are other physicians in the state who are eligible whose names we do not have, we hope that they or their friends will write us. The only rule for membership in this club is fifty years in the practice of medicine.

#### GRADUATE COURSE IN ELECTRO- CARDIOGRAPHY

A full-time, intensive course in electrocardiography will be presented by the Cardiovascular Department of the Michael Reese Hospital in Chicago from August 21 to September 2, 1944, under the directorship of Louis N. Katz, M.D. The course is offered to the general practitioner and internist. There will be discussion of the principles of the construction and use of electrocardiographic machines, and their demonstration. There will be sessions on interpretations of electrocardiograms illustrated by lantern slides, and practice by the student with unknown records. Routine records taken during the time of the course will be shown and discussed. Emphasis will be placed on chest leads and on the importance of the electrocardiogram in coronary sclerosis and myocardial infarction. The mechanism and interpretation of cardiac arrhythmias will be developed. Bedside diagnosis and management will be touched upon.

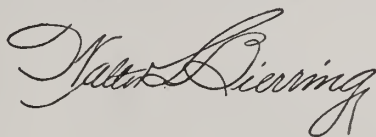
Since group and individual instruction will be given, the course is open to both the beginning and advanced student in electrocardiography. It is planned to individualize the course by group conferences so that at the end of the period each student will be capable of properly interpreting routine electrocardiograms. In order to accomplish this purpose the class will be limited in number. It is imperative, therefore, that reservations be made early.

For further information address Michael Reese Hospital, Cardiovascular Department, Twenty-ninth and Ellis Avenue, Chicago 16, Illinois.

## Notice to County Society Secretaries

All delinquent dues must be in the Central Office prior to June 12 in order that the names of those physicians may be included in the Membership Roster which will appear in the July issue.

# STATE DEPARTMENT OF HEALTH



## POOLED NORMAL HUMAN SERUM AND PLASMA

The Serum-Plasma Center of the Iowa State Department of Health began procurement, preparation, and distribution of pooled normal human serum in December, 1940, and of Plasma in April, 1943. These blood derivatives, available primarily for the control or prevention of shock, are supplied to hospitals and attending physicians.

Through courtesy and interest of physicians and hospital officials, case records have been completed and returned to the Division of Preventable Diseases of the State Department of Health, reporting results attending the use of serum or plasma. Some of these reports are presented briefly in the following paragraphs:

### CASE 1. POSTOPERATIVE UTERINE HEMORRHAGE

Mrs. J. P., 30, resident of Floyd County, suffered postoperative uterine hemorrhage and shock in February, 1944, following cesarean section. Her blood pressure was 100/70, pulse rate 144, and respirations 10. Pooled normal serum (500 cc.) was administered at once. After four hours and for the first forty-eight hours following the use of serum, the pulse rate was 120 and respirations varied from 20 to 24. There was no immediate or delayed untoward reaction, and the effect of the serum was satisfactory.

### CASE 2. POSTPARTUM HEMORRHAGE

Mrs. R., 37, of Pottawattamie County, had a postpartum hemorrhage in February, 1944, immediately following delivery of a premature baby in the sixth month of pregnancy. Her blood pressure before the administration of 500 cubic centimeters of serum was 90/70, pulse rate 100, and respirations 26. One hour after the use of serum, her blood pressure was 120/80, pulse 92. After forty-eight hours the pulse rate was 80, respirations 30.

### CASE 3. TOXEMIA OF PREGNANCY

During March, 1944, Mrs. R. H., 36, of Boone County, developed toxemia complicating pregnancy. Her blood pressure was 240/150; albu-

minuria +++++. Labor was induced at six and one-half months because of progressive toxemia.

Traumatic shock followed delivery by version and manual removal of the placenta. The blood pressure was not obtainable. Serum (500 cc.) was administered two hours after the appearance of shock. The blood pressure was 80/65 an hour after the serum administration; after ten hours, the blood pressure was not obtainable. Twelve hours following onset of shock, a whole blood transfusion was given, using 500 cubic centimeters of citrated blood. At twenty-four hours, the blood pressure was 130/90 and the pulse rate 100.

The physician's report stated that the serum was "life-saving during preparation for blood transfusion."

### CASE 4. SURGICAL REMOVAL OF KIDNEY TUMOR

Mr. F. T., 72, retired farmer of Winneshiek County, had a tumor "twice the size of a football," and with origin in the left kidney, removed in January, 1944. The patient's physical condition was poor following operation; his blood pressure was 90/68, pulse rate 104, and respirations 20.

Five hundred cubic centimeters of serum were transfused thirty minutes after the first sign of shock. An hour later, his blood pressure was 110/68, pulse rate 96; after four hours, his blood pressure was 140/80; and on the third day it was 130/70, with the pulse rate 88, and respirations 20.

Serum was noted to have brought about "marked improvement."

### CASE 5. RESECTION FOR CARCINOMA

On May 9, 1944, Mrs. J. J., 65, a resident of Chickasaw County, was operated upon for removal of cancer of the stomach. It was necessary to do a "very extensive total resection." Red blood cells numbered 4,690,000. Although the patient showed no sign of shock, 500 cubic centimeters of serum were administered, evidently as a prophylactic and supportive measure, with "good" effect.



CASE 6. LEG CAUGHT IN TRACTOR

R. B., a boy of seven, of Floyd County, was accidentally injured July 8, 1943. His left leg was caught in a tractor, making amputation necessary. The systolic blood pressure was 55 and the pulse 112 before use of 500 cubic centimeters of serum given one and a half hours after the first sign of shock. After seventy-two hours, the pulse beats numbered 132 and respirations 24. The red blood cells numbered 3,200,000 and hemoglobin 46 per cent. There was no evidence of immediate or delayed untoward reaction. The effect of the serum was "good."

AGE AND SEX OF PATIENTS

During 1943 and the first four months of 1944, case reports totaled 214, of which 165 contained needed information. Age and sex of the patients are set forth in the following table:

AGE AND SEX DISTRIBUTION OF 165 PATIENTS WHO RECEIVED SERUM OR PLASMA TO COMBAT SHOCK DURING PERIOD JANUARY 1943-APRIL 1944			
Age Group	Male	Female	Total
1-9.....	5	5	10
10-19.....	7	8	15
20-39.....	15	58	73
40-59.....	28	13	41
60-79.....	11	11	22
80.....	4	0	4
Total.....	70	95	165

CAUSES OF SHOCK—REPORTED RESULTS

In the series of 165 case reports, accidental injuries, including burns, accounted for 39 cases, 34 were due to complications of pregnancy, and 92 were due to surgical conditions.

In 113 instances (68.5 per cent), the result of the use of serum or plasma was stated as "good." Fatalities in the group of 165 numbered 28, a case mortality rate of 17 per cent.

SERUM AND PLASMA AVAILABLE

The Serum-Plasma Center secures plasma and serum for emergency civilian needs in coopera-

tion with local sponsoring agencies, physicians, and hospitals in large and small communities throughout the state.

The method of distribution of these blood elements from the Serum-Plasma Center was outlined in the October, 1943, issue of the JOURNAL of the Iowa State Medical Society, pp. 473-474.

IPHA REPORTS SUCCESSFUL MEETING

The Eighteenth Annual Meeting of the Iowa Public Health Association differed from previous sessions in that a team of speakers, secured in cooperation with the American Public Health Association, comprised the main part of the program. Each of the participants was an authority in his or her chosen field and a good teacher. The papers and the discussions at the problem solving round-up presented information of practical value and of interest to physicians, local health officers, sanitary engineers, public health nurses, and all others who attended.

Dr. Arthur Massey, M.D., Medical Officer of Health, Coventry, England, gave a most interesting account of conditions in that city during and after the blitz and of the new Coventry as envisioned and planned for the future.

Elected officers for the coming year are C. L. Putman, M.D., Des Moines, President-Elect; Paul J. Houser, Des Moines, President; Hazel Roberts, R.N., Manchester, Vice President; and Carl F. Jordan, M.D., Des Moines, Secretary-Treasurer. Fern Goulding, R.N., Ames, and A. H. Wieters, Des Moines, were elected to the Executive Committee.

PREVALENCE OF DISEASE

Disease	Apr. '44	Mar. '44	Apr. '43	Most Cases Reported From
Diphtheria .....	13	23	14	Butler, Cerro Gordo, Woodbury
Scarlet Fever .....	846	881	340	For the State
Typhoid Fever .....	1	4	2	Dubuque
Smallpox .....	7	14	4	Webster
Measles .....	815	1127	1230	For the State
Whooping Cough .....	42	50	140	O'Brien, Washington
Brucellosis .....	10	24	36	For the State
Chickenpox .....	299	405	251	Black Hawk, Dubuque, Linn
German Measles .....	31	34	1261	Johnson, Muscatine
Influenza .....	50	67	6	Humboldt
Meningitis .....	14	9	15	Black Hawk, Dubuque, Linn, Polk
Mumps .....	304	231	517	Boone, Washington
Pneumonia .....	48	91	38	For the State
Poliomyelitis .....	0	0	0	None
Tuberculosis .....	114	78	46	For the State
Gonorrhea .....	133	154	147	For the State
Syphilis .....	191	212	250	For the State

# The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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DENNIS H. KELLY, Associate Editor.....Des Moines

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## NATIONAL PHYSICIANS COMMITTEE'S SURVEY

One result of the introduction of the Wagner-Murray-Dingell Bill into Congress which, in the end, may turn out to be decidedly advantageous is the wide publicity and tremendous discussion this bill has focused upon medicine in its scientific, political, and economic aspects. An opportunity, which otherwise might have been difficult of attainment, has been given to bring again and again before the American people the miraculous accomplishments of scientific medicine. And no voice has dared raise itself in challenge to such statements, because every citizen in every village and hamlet in the nation now knows that the quality of medical care in the United States is superior to that of any other nation in the world. The present conflict is not concerned with the scientific phase of medical care, but rather with its method of distribution to the people. The bill would give political bureaucratic governmental control over the distribution of this highly individualized technical knowledge. Under its provisions a total yearly sum of twelve billion dollars would be raised by compulsory taxation, of which three billion would be used to pay for the medical care and hospitalization costs of the beneficiaries. Medicine, on the other hand, has long been engaged in an experimental study of various types of medical service plans with the objective always foremost of trying to find the plan or plans which would be workable and yet would preserve the fundamental concepts of private initiative for both physician and patient. Marked success has already been scored in this direction, and there is no question but that a satis-

factory solution on a national scale could be worked out in a relatively short time if political and governmental interference could be kept out of the picture.

But the Wagner-Murray-Dingell Bill forced the issue, and the National Physicians Committee wanted to know what the people thought. They (the members of the Committee) wanted to know if a majority of the people really wanted socialized medicine, or whether the majority favored the retention of medicine under private leadership. To find out, a survey was conducted of such magnitude and under such conditions as made the results unquestionably reflect the opinion of the population of the nation. Three-quarters of the people are against control of the medical profession by the National Government. Over four-fifths are against a 6 per cent pay roll deduction from wages to create a fund for the Federal Government to provide medical care and hospitalization. The majority of American people feel that doctors' fees and hospital charges are satisfactory and reasonable, but over half of them feel that "some plan of easy payment must be provided for the payment of costs for *unusual* and general illness." *Ordinary* doctor bills do not require such a plan.

Some type of prepayment plan to cover the medical and hospital costs of unusual, prolonged, or catastrophic illness is what the majority of American people want. And they want this to be developed under the private enterprise system. Here in a nutshell is the problem facing not only medicine but business as well; the problem involved is an economic one requiring not only the participation of doctors but also of insurance companies and other groups. Already some 25,000,000 people are receiving benefits under prepayment plans of various types. All that is needed is to extend these plans to include all the people.

There is every reason to believe that the medical profession, the legal profession, and the businessmen of America are thoroughly aware of the challenge confronting private enterprise in this matter of distribution of medical care to the country's citizens. All realize that failure to accept the challenge will inevitably result in strengthening the cause of politically dominated medicine and eventually of politically dominated business and professions of all types.

Shortly, the American Medical Association meets in Chicago. The transactions in the House of Delegates will be watched with the greatest of interest by all those who have at heart the preservation of the private enterprise system in these United States.



### SULFAMERAZINE VS. SULFADIAZINE

The newest offspring from the growing family of sulfa compounds to come into active clinical usage is sulfamerazine. Naturally, the question at once arises as to what advantages, if any, this particular form of the drug possesses over its predecessors. Abundant evidence has gradually accumulated to demonstrate convincingly that sulfadiazine is equal or superior in its therapeutic effects to any of the earlier sulfonamides, and furthermore that it is distinctly less toxic. Sulfamerazine need be compared, therefore, only with sulfadiazine. Moreover, it need be compared only with respect to its possible toxicity, since the two compounds are about equal in their therapeutic effects.

In order to evaluate the relative toxicity of sulfamerazine and sulfadiazine, Dowling and his associates reviewed the records on all their patients to whom either of these drugs had been administered and reported their findings in the May 13, 1944, issue of *The Journal of the American Medical Association*. A total of 900 patients who had been treated with sulfadiazine and 428 with sulfamerazine formed the basis for the study. Toxic reactions occurred in 8.1 per cent of the patients receiving sulfadiazine, and in 10.0 per cent receiving sulfamerazine. In the breakdown of the toxic reactions, vomiting, mental confusion, and leukopenia were observed with about equal frequency following the use of the two compounds. Acute hemolytic anemia occurred in two patients receiving sulfadiazine, and leukocytosis also developed in two sulfadiazine patients. Neither of these toxic effects occurred in the sulfamerazine group. Fever, dermatitis, or conjunctivitis, alone or in combination, occurred in both groups in about the same proportion.

However, the situation was different in the matter of renal calculi, a toxic effect all clinicians have learned to be on the alert to detect whenever sulfonamides are being given. Among 195 patients who received an initial dose of 6 grams of sulfadiazine followed by 1 gram every four hours only three individuals, or 1.5 per cent, developed renal calculi, whereas four, or 8.6 per cent, among 35 patients to whom the same dose of sulfamerazine was administered had renal calculi. When the dosage was cut to 2 grams initially, followed by 0.5 gram every four hours, no cases of renal calculi were encountered among 140 sulfadiazine patients, but three, or 3.4 per cent, in the sulfamerazine group of 87 patients developed the complication. The authors point out that even if sulfamerazine may be more effective therapeutically in smaller doses than sulfadiazine, there is still greater dan-

ger of renal calculi occurring following sulfamerazine.

The conclusion reached by Dowling and his associates from their experience is that "Sulfadiazine is the drug of choice for systemic sulfonamide therapy at the present time."

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### WAR FOOD ADMINISTRATION MEDICAL PROGRAM

This year the War Food Administration, Office of Labor, is again assisting with food production by the recruitment and transportation of foreign and interstate migratory farm laborers. A divisional office has been established in Chicago at 226 West Jackson Boulevard, Chicago 6, Illinois, with Mr. W. A. Canon serving as Chief of Operations. This office will serve the seventeen states composing the central area of the country.

The Health Services Division of the Chicago office is charged with the responsibility of dealing with the public health and medical care aspects of the War Food Administration's responsibility to the foreign and domestic migratory farm laborers. Only foreign and domestic workers who have a contract with the Federal Government and transported by the War Food Administration are in this category. The Health Services Division is headed by a medical officer assigned by the United States Public Health Service and has the services of two sanitary engineers, similarly assigned. Nursing personnel is available through the Midwestern Agricultural Workers Health Association.

The Health Services Division carries out an industrial hygiene and medical program adapted to migratory workers in the farming industry. The program has as its general objectives:

1. Recruitment and transfer of *healthy* workers.
2. Prevention of the spread of disease *by* the workers.
3. Prevention of the spread of disease *to* the workers.
4. The provision and maintenance of a sanitary environment for the workers.
5. The promotion of optimal health in the individual worker in order to reduce absenteeism, promote morale, etc.
6. The provision of medical, dental, nursing, and hospital care.

The workers included in this program have had a physical examination which included an x-ray examination of the chest and serologic test for syphilis. Those workers showing pathology of the lungs were not accepted and will not be coming into the state. Also those workers with infectious diseases or with physical disabilities which would

impair their ability as a worker were excluded from the program.

It is planned to carry out the public health aspects of the program in close cooperation with the state and local health departments of the states in which the program operates. The Health Services Division is in the position of offering assistance to local communities in solving the various public health problems presented by migratory farm workers.

Agreements have been made between the United States Government and the national government of the countries from which the foreign farm laborers are recruited. For the most part, foreign laborers will be recruited in Mexico, Jamaica, and Bahama. These agreements provide that the foreign workers be furnished complete medical service while in this country. Because of these agreements and also because the workers belong to medically indigent groups who are transient nonresidents, the War Food Administration has the responsibility of seeing that medical care is available to the workers. The War Food Administration arranges for the medical care to be provided through a nonprofit corporation.

The corporation operating in the North Central states is known as the Midwestern Agricultural Workers Health Association and is governed by a board of directors appointed from the states in which it operates. The medical officer of the divisional office of the War Food Administration serves as executive medical officer of the association. The association also has a business manager who is responsible for administrative details and employs field nurses in order to arrange for the provision of medical care by local physicians and local facilities. The nurses also assist in the carrying out of those aspects of the program which deal with preventive medicine and public health.

Arrangements will be made to have medical care provided the workers by local physicians on a fee-for-service basis. There are no restrictions regarding the choice of physicians whose services are needed by the workers. While the association does not have an established fee schedule, physicians, dentists, and hospitals are requested to compute their fees on the basis of the rates applicable to the medically indigent group of the community.

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#### SPECIFIC THERAPY IN HUMAN TUBERCULOSIS

Entirely to be expected is an investigation of the effectiveness of some of the newer chemotherapeutic agents in tuberculosis. Success in animal experimentation may lead to unwarranted

assumptions that similar results may be expected in human disease. Such would appear to be the case regarding tuberculosis at the present time. For this reason the JOURNAL feels it important to publish the following report of the Committee on Therapy of the American Trudeau Society from the June, 1944, *Tuberculosis Clip Sheet*:

"Promin, Diasone, Promizole and certain related compounds appear to possess in varying degree the ability to restrain development of experimentally induced tuberculosis in guinea pigs. It is recognized that this offers many contrasts with clinical tuberculosis in humans, even though the causative organism is the same.

"Clinical and roentgenological data so far made available are as yet inadequate both quantitatively and qualitatively to permit, even tentatively, a positive evaluation of the curative effects of such drugs upon tuberculosis in human beings. Until controlled studies of adequate scope have been reported it is recommended that none of these drugs be used for treating tuberculous patients except under conditions which will add to our knowledge of their clinical action, and in the presence of adequate facilities to protect patients effectively from their potentially serious toxic effects. Patients and physicians must be reminded of the Federal regulations which prohibit distribution of a drug in the experimental phase of development to other than research institutions to which the material is assigned by the manufacturer for either laboratory or clinical investigation.

"Any use of chemotherapeutic agents in the treatment of tuberculous patients must, therefore, be regarded as a purely clinical investigation. It must be emphasized that such use is not without hazard and that the roentgenological and clinical evidence reviewed gives no justification at this time for more than a critical interest in the value of these drugs in patients."

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#### HOSPITAL WASTE PAPER AND CONTAINER RE-USE PROGRAM

America's hospitals have a bigger than average stake in the current waste paper salvage program. If civilian hospitals are to continue to receive their full quota of paper-packaged supplies, and at the same time lend a hand to the military hospital units abroad, it is essential they dig out every ounce of available waste paper and dispose of it.

It takes 25 tons of blueprint paper to build one big battleship. More than 700,000 different kinds of items are shipped to the Army, paper-wrapped or boxed. Each 500 pound bomb requires 12 pounds of paper in the form of rings (bands),



tops and bottoms. Each 75 millimeter shell takes 1.8 pounds of paperboard for its protective container. It takes 52 pounds of paper to protect an Army hospital ambulance for overseas shipment. These vital needs for paper must be satisfied, which means that the nation's civilian hospitals must do more than their part.

The chief substitute for the scarce wood pulp today is waste paper. Not only can waste paper stretch diminishing supplies of wood pulp—it can be used directly in the manufacture of many important war products, thereby saving proportionate amounts of wood pulp for other uses.

The active help of every hospital in the program should consist of: (1) Avoiding waste in the use of paper, and (2) salvaging waste paper and returning it to use.

Today, the War Production Board regional offices throughout the country are asking for the cooperation of every hospital, every doctor, every medical and dental unit in the scrap paper program. They are asked to dispose of books, magazines, newspapers, records, wrappings, cartons, advertising literature and bulletins. They are asked to ferret out every last scrap or shred of paper to go into the salvage paper drive.

Micro-filming of old records is only one step that can be taken to swell the nation's paper scrap piles. Each hospital head should check the following sources of waste paper: old files, ledgers, correspondence, receipts, canceled checks, time cards, invoices, pamphlets, calendars, bulletins, obsolete catalogs, books and periodicals, containers, flower boxes and waste baskets.

Whatever method of handling paper and other salvage is in use today in the average hospital, there are four immediate and additional steps that should be taken to accelerate at once the waste paper collection: (1) Appoint and hold responsible some member of the hospital personnel to head and correlate the paper salvage program. (2) Take immediate steps to scrap old records by using the micro-film process. (3) Publicize the waste paper drive with bulletins or posters in every department, with short talks and appeals to staff personnel. (4) Set up a system of waste paper collection with every possible source of waste paper checked at regular intervals.

Hospitals can be especially helpful in the waste paper drive by publicizing the campaign to all doctors whose offices are fruitful and profitable sources of old magazines, newspapers, bulletins, and records. It has been suggested that hospitals urge doctors to send or bring their waste paper to the particular hospital which they serve as one means of aiding them to dispose of it with a minimum effort. Desks, both in doctors' offices and

in hospitals, are generally good sources of scrap and should not be overlooked. One hospital supply firm recently urged all employees to "house-clean" desks and the result was an agreeable surprise.

There is an abundance of waste paper in the home, the office, and the hospitals, much of which never reaches the mill. Wartime shortages of manpower and transportation are so acute that the flow of waste paper to the mills has been curtailed. And therein lies the problem.

The many thousands of tons of urgently needed waste paper gathering dust and costing storage space in hospitals throughout the country will appreciably swell the total scrap tonnage collected in the coming months.

Here are some final pointers which every hospital director, or hospital salvage manager, may follow in his own scrap drive: (1) All grades and types of paper are wanted—don't slight any source. (2) Waste paper brings varying prices depending on type, grade and condition, locality and transportation cost. Your dealer can tell you how to sort paper to bring premium prices. (3) Corrugated containers should not be sold with mixed paper. They should be separated and bundled for collection. (4) Baled paper brings highest prices, so if your hospital does not have a baler, ask your dealer about bringing in baling equipment. (5) Shredding is a safeguard for confidential medical files. Papers can be sent to a dealer to be shredded, with a hospital official accompanying the shipment in order to guarantee complete security. (6) Waste paper should be disposed of through regularly established waste paper dealers. If one is not available, call your WPB office for advice.

No part of the war effort is more essential than the waste paper drive. The hospitals of America must shoulder their share of this job—TODAY.

## MANY THANKS!

At the time of writing, May 15, 431 doctors of Iowa and their wives have subscribed approximately \$1,000.00 in the Women's Field Army campaign for funds. This, in conjunction with the contributions of the public, assures the continuation of the educational program against cancer in Iowa. Mrs. A. V. O'Brien, Commander, and the Executive Board of the Field Army unite in expressing their gratification for the fine results and in extending their gratitude to all the doctors or their families who contributed. In behalf of the Women's Field Army they say from the heart, *Many Thanks!*

# MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

## Meeting of the Board of Trustees April 21, 1944

The Board of Trustees of the Iowa State Medical Society met at the Hotel Fort Des Moines April 21, 1944, with the following doctors present: Oliver J. Fay of Des Moines, John I. Marker of Davenport, and Walter A. Sternberg of Mount Pleasant. Dr. Fay was reelected chairman of the Board for the coming year and was authorized to sign all routine bills for payment. Expenses of delegates to the American Medical Association were authorized.

## Meeting of the Council April 20, 1944

The Council of the Iowa State Medical Society held its first meeting during the annual session on Thursday, April 20, 1944. Present were Drs. L. L. Carr of West Union, J. B. Knipe of Armstrong, J. E. Reeder of Sioux City, E. F. Beeh of Fort Dodge, J. C. Hill of Newton, H. A. Householder of Winthrop, and J. G. Macrae of Creston. Minutes were read and approved and the meeting adjourned until the following day.

## April 21, 1944

The second meeting of the Council was held April 21, 1944, with the following members present: Drs. L. L. Carr, C. H. Cretzmeier, J. B. Knipe, J. E. Reeder, E. F. Beeh, J. C. Hill, H. A. Householder, R. C. Gutch, and J. G. Macrae. Dr. Painter, chairman of the Tuberculosis Committee, was also present.

Dr. Painter asked the sentiment of the Council toward having a section on tuberculosis at the next annual meeting, and was told such a section meeting would have the Council's approval. Dr. Reeder was reelected chairman, and Dr. Macrae, secretary, for the coming year. Dr. Hill explained the present status of the Women's Field Army and the cancer situation, and it was discussed; committee appointments were made; and the meeting adjourned.

## Meeting of the Committee on Maternal and Child Health April 19 and 20, 1944

The Committee on Maternal and Child Health held two meetings during the annual meeting, the first on the evening of April 19 following the meeting of the House of Delegates. Those present included Drs. H. E. Farnsworth of Storm Lake, L. F. Hill of Des Moines, E. D. Plass of Iowa City, J. F. Gerken of Waterloo, and J. M. Hayek of Des Moines. The EMIC program was discussed and it was decided to draw up a resolution to present to the House of Delegates Friday morning.

The second meeting of the Committee was held April 20, and at this time Dr. C. P. Phillips was also present. The following resolution was drawn up and adopted:

WHEREAS, the Iowa State Medical Society at its regular annual meeting in 1943, in a spirit of patriotic cooperation, approved participation of its members in the EMIC program developed by the Chil-

dren's Bureau for the emergency care of the wives and children of certain enlisted personnel of the armed forces, even in spite of the lack of any evidence that the profession of Iowa was not giving adequate care, under existing provisions, to any members of those groups, and

WHEREAS, the regulations subsequently developed by the Children's Bureau for carrying out this program violate established principles of the traditional physician-patient relationship and of governmental assistance to the dependents of servicemen, therefore

## BE IT RESOLVED, that

1. The Iowa State Medical Society reaffirm its continued sense of obligation to provide reasonable medical care for such dependents and its interest in their welfare, and

2. The Iowa State Medical Society instruct its officers and committees and urge its members to work through available legal and legislative channels for the revision of the Children's Bureau regulations in order to remove the following chief obstacles to the harmonious cooperation of the profession of Iowa with the Children's Bureau in implementing the EMIC program:

a. To cease direct payment to the physicians for services rendered, and to substitute therefor a system of allotment or subsidization, such as prevails in all other phases of governmental assistance, to the end that the third party may be eliminated from the financial consideration involved in the provision of medical care; and

b. To eliminate the regulatory provision which demands that the recipient of such governmental aid accept all or none of the offered financial assistance. In other words, to separate professional attention from hospitalization and other ancillary services so that the individual wife or mother may apply for help in the area where actual need exists, i. e., for hospitalization or medical services, or both, as she may desire; and

c. To make it possible for these wives and children to receive the type of care which they desire, rather than to be forced into a pattern designed by a governmental agency, by removing the restriction that the uniform sum received from the Children's Bureau must be the total compensation paid the physician; and

d. To liberalize the entire program to conform to the traditions of a free and democratic people who object to regimentation of their lives even under the guise of paternalistic benevolence; and

BE IT FURTHER RESOLVED, that these constructive suggestions be presented to our Iowa representatives in the Congress of the United States, and be made the basis of our efforts to have the present controversial regulations of the Children's Bureau in connection with the EMIC program revised in the interests of greater harmony between the physicians and the Bureau, and of the maintenance of sound democratic principles.

Following this, the Committee adjourned.



## COUNTY MEDICAL SOCIETY OFFICERS

COUNTY	PRESIDENT	SECRETARY	DEPUTY COUNCILOR
Adair.....	R. E. Wiley, Fontanelle.....	A. S. Bowers, Orient.....	A. S. Bowers, Orient
Adams.....	Frederick Binder, Corning.....	J. H. Wallahan, Corning.....	W. F. Amdor, Carbon
Allamakee.....	J. W. Myers, Postville.....	J. W. Thornton, Lansing.....	J. W. Thornton, Lansing
Appanoose.....	J. C. Donahue, Centerville.....	R. L. Fenton, Centerville.....	C. S. Hickman, Centerville
Audubon.....	P. E. James, Elkhorn.....	W. H. Halloran, Audubon.....	L. E. Jensen, Audubon
Benton.....	N. B. Williams, Belle Plaine.....	D. A. Dutton, Van Horne.....	N. B. Williams, Belle Plaine
Black Hawk.....	E. E. Magee, Waterloo.....	S. A. Barrett, Waterloo.....	A. J. Joynl, Waterloo
Boone.....	A. B. Deering, Boone.....	B. T. Whitaker, Boone.....	J. O. Gance, Ogden
Bremer.....	O. C. Hardwig, Waverly.....	M. N. Gernsey, Waverly.....	F. R. Sparks, Waverly
Buchanan.....	N. L. Hersey, Independence.....	J. W. Barrett, Jr., Independence.....	C. W. Tidball, Independence
Buena Vista.....	A. B. Carstensen, Linn Grove.....	T. R. Campbell, Sioux Rapids.....	H. E. Farnsworth, Storm Lake
Butler.....	J. G. Evans, New Hartford.....	F. F. McKean, Allison.....	Bruce Ensley, Shell Rock
Calhoun.....	P. W. Van Metre, Rockwell City.....	D. C. Carver, Rockwell City.....	R. G. Hinrichs, Manson
Carroll.....	A. R. Anneberg, Carroll.....	P. D. Anneberg, Carroll.....	W. L. McConkie, Carroll
Cass.....	G. A. Alliband, Atlantic.....	E. C. Montgomery, Atlantic.....	W. S. Greenleaf, Atlantic
Cedar.....	Fred Montz, Lowden.....	J. E. Smith, Clarence.....	E. J. Van Metre, Tipton
Cerro Gordo.....	S. A. O'Brien, Mason City.....	R. E. Smiley, Mason City.....	G. J. Sartor, Mason City
Cherokee.....	C. W. Ihle, Cleghorn.....	D. C. Koser, Cherokee.....	C. H. Johnson, Cherokee
Chickasaw.....	Nicholas Schilling, New Hampton.....	J. E. Murtough, New Hampton.....	P. E. Gardner, New Hampton
Clarke.....	F. S. Bowen, Woodburn.....	H. E. Stroy, Osceola.....	H. E. Stroy, Osceola
Clay.....	T. H. Johnston, Spencer.....	C. C. Colleston, Spencer.....	J. M. Sokol, Spencer
Clayton.....	G. W. Tapper, Monona.....	P. R. V. Hommel, Elkader.....	P. R. V. Hommel, Elkader
Clinton.....	A. K. Meyer, Clinton.....	E. V. Donlan, Clinton.....	R. F. Luse, Clinton
Crawford.....	E. V. Zaeske, Charter Oak.....	Dora E. K. Zaeske, Charter Oak.....	C. L. Sievers, Denison
Dallas-Guthrie.....	W. V. Thornburg, Guthrie Center.....	S. J. Brown, Panora.....	E. J. Butterfield, Dallas Center
Davis.....	C. H. Cronk, Bloomfield.....	H. C. Young, Bloomfield.....	S. J. Brown, Panora
Decatur.....	H. M. Hills, Lamoni.....	K. R. Brown, Lamoni.....	H. C. Young, Bloomfield
Delaware.....	C. B. Rogers, Earlville.....	Paul Stephen, Manchester.....	F. A. Bowman, Leon
Des Moines.....	E. P. Russell, Burlington.....	H. F. Hosford, Burlington.....	J. K. Stepp, Manchester
Dickinson.....	P. G. Grimm, Spirit Lake.....	Ruth F. Wolcott, Spirit Lake.....	F. G. Ober, Burlington
Dubuque.....	J. A. Thorson, Dubuque.....	K. K. Hazlet, Dubuque.....	T. L. Ward, Arnolds Park
Emmett.....	C. E. Birney, Estherville.....	L. W. Loving, Estherville.....	J. C. Painter, Dubuque
Fayette.....	C. C. Hall, Maynard.....	A. F. Grandinetti, Oelwein.....	S. C. Kirkegaard, Estherville
Floyd.....	L. S. Wentworth, Marble Rock.....	E. A. Fox, Charles City.....	C. C. Hall, Maynard
Franklin.....	J. C. Powers, Hampton.....	F. L. Siberts, Hampton.....	R. A. Fox, Charles City
Fremont.....	Ralph Lovelady, Sidney.....	A. E. Wanamaker, Hamburg.....	J. C. Powers, Hampton
Greene.....	W. E. Chase, Rippey.....	J. R. Black, Jefferson.....	A. E. Wanamaker, Hamburg
Grundy.....	Varina Des Marias, Grundy Center.....	H. L. Mol, Grundy Center.....	O. C. Lohr, Churdan
Hamilton.....	C. V. Hamilton, Garner.....	M. B. Galloway, Webster City.....	W. B. Galloway, Webster City
Hancock-Winnebag.....	C. V. Hamilton, Garner.....	G. F. Dolmage, Buffalo Center.....	C. V. Hamilton, Garner
Hardin.....	G. A. Blaha, Whitten.....	W. E. Marsh, Eldora.....	G. F. Dolmage, Buffalo Center
Harrison.....	R. H. Cutler, Little Sioux.....	F. H. Hanson, Magnolia.....	F. N. Cole, Iowa Falls
Henry.....	S. W. Huston, Mt. Pleasant.....	S. W. Huston, Mt. Pleasant.....	S. W. Huston, Mt. Pleasant
Howard.....	W. A. Bockoven, Cresco.....	F. E. Giles, Cresco.....	W. A. Bockoven, Cresco
Humboldt.....	L. R. Turner, Renwick.....	C. A. Newman, Bode.....	I. T. Schultz, Humboldt
Ida.....	H. H. Harris, Battle Creek.....	W. P. Crane, Holstein.....	E. S. Parker, Ida Grove
Iowa.....	E. L. Hollis, Marengo.....	I. J. Sinn, Williamsburg.....	I. J. Sinn, Williamsburg
Jackson.....	B. B. Dwyer, Preston.....	F. J. Swift, Maquoketa.....	I. J. Sinn, Williamsburg
Jasper.....	R. F. Frech, Newton.....	T. D. Wright, Newton.....	R. W. Wood, Newton
Jefferson.....	K. G. Cook, Fairfield.....	I. N. Crow, Fairfield.....	I. N. Crow, Fairfield
Johnson.....	A. L. Sals, Iowa City.....	R. H. Flocks, Iowa City.....	G. C. Albright, Iowa City
Jones.....	J. D. Paul, Anamosa.....	C. R. Smith, Onslow.....	T. M. Redmond, Monticello
Keokuk.....	T. J. G. Dulin, Sigourney.....	John Maxwell, What Cheer.....	C. L. Heald, Sigourney
Kossuth.....	J. W. McCreery, Whittemore.....	M. G. Bourne, Algona.....	J. G. Clapsaddle, Burt
Lee.....	W. M. Hogle, Keokuk.....	H. F. Noble, Fort Madison.....	R. L. Feightner, Ft. Madison
Linn.....	J. K. von Lackum, Cedar Rapids.....	R. E. Stephen, Cedar Rapids.....	B. L. Gilfillan, Keokuk
Louisia.....	O. A. Kabrick, Grandview.....	L. E. Weber, Wapello.....	B. F. Wolverton, Cedar Rapids
Lucas.....	C. F. Goltry, Russell.....	R. E. Anderson, Chariton.....	H. Chittum, Wapello
Lyon.....	H. E. Carver, Earlham.....	F. B. O'Leary, George.....	S. L. Throckmorton, Chariton
Madison.....	L. F. Catterson, Oskaloosa.....	E. M. Olson, Winterset.....	C. B. Hickenlooper, Winterset
Mahaska.....	F. M. Roberts, Knoxville.....	E. C. McClure, Bussey.....	L. F. Catterson, Oskaloosa
Marion.....	L. F. Talley, Marshalltown.....	G. M. Johnson, Marshalltown.....	E. C. McClure, Bussey
Marshall.....	T. B. Lacey, Glenwood.....	I. U. Parsons, Malvern.....	A. D. Woods, State Center
Mills.....	G. E. Krepelka, Osage.....	M. O. Eiel, Osage.....	D. W. Harman, Glenwood
Mitchell.....	J. S. Deering, Onawa.....	E. E. Gingles, Onawa.....	S. Walker, Riceville
Monona.....	J. F. Stafford, Lovilia.....	T. A. Moran, Melrose.....	C. W. Young, Onawa
Monroe.....	Gladys Cooper, Red Oak.....	Velura E. Powell, Red Oak.....	T. A. Moran, Melrose
Montgomery.....	L. C. Howe, Muscatine.....	J. L. Klein, Jr., Muscatine.....	T. F. Beveridge, Muscatine
Muscatine.....	C. A. Samuelson, Sheldon.....	W. S. Balkema, Sheldon.....	W. R. Brock, Sheldon
O'Brien.....	E. P. Farnum, Sibley.....	H. B. Paulsen, Harris.....	Frank Reinsch, Ashton
Osceola.....	N. M. Johnson, Clarinda.....	J. F. Aldrich, Shenandoah.....	W. H. Maloy, Shenandoah
Page.....	J. P. McManus, Graettinger.....	P. O. Nelson, Emmetsburg.....	H. L. Brereton, Emmetsburg
Palo Alto.....	M. J. Joynl, Le Mars.....	L. C. O'Toole, Le Mars.....	W. L. Downing, Le Mars
Plymouth.....	W. E. Goynt, Pocahontas.....	G. A. Everson, Rolfe.....	J. H. Hovenden, Laurens
Pocahontas.....	C. B. Luginbuhl, Des Moines.....	E. W. Anderson, Des Moines.....	J. B. Synhorst, Des Moines
Polk.....	M. J. Carey, Council Bluffs.....	G. V. Caughlan, Council Bluffs.....	G. N. Best, Council Bluffs
Pottawattamie.....	W. B. Phillips, Montezuma.....	C. E. Harris, Grinnell.....	C. E. Harris, Grinnell
Poweshiek.....	O. L. Fullerton, Redding.....	J. W. Hill, Mt. Airy.....	E. J. Watson, Diagonal
Ringgold.....	A. M. Blum, Wall Lake.....	J. W. Gauger, Early.....	J. R. Dewey, Schaller
Sac.....	M. M. Benfer, Davenport.....	L. J. Miltner, Davenport.....	A. P. Donohoe, Davenport
Scott.....	J. P. McGowan, Harlan.....	Alfred Sorensen, Harlan.....	A. L. Nielson, Harlan
Shelby.....	A. L. Lock, Rock Valley.....	Wm. Doornink, Orange City.....	Bush Houston, Nevada
Sioux.....	J. G. Grant, Ames.....	W. B. Armstrong, Ames.....	A. A. Pace, Toledo
Story.....	F. W. Gessner, Dysart.....	G. M. Dalbey, Traer.....	G. W. Rimel, Bedford
Tama.....	C. E. Buckley, Blockton.....	J. H. Gasson, Bedford.....	C. E. Sampson, Creston
Taylor.....	J. A. Liken, Creston.....	C. E. Sampson, Creston.....	J. A. Craig, Keosauqua.....
Union.....	Roscoe Pollock, Douds-Leando.....	J. A. Taylor, Ottumwa.....	E. B. Hoeven, Ottumwa
Van Buren.....	V. S. Downs, Ottumwa.....	C. H. Mitchell, Indianola.....	C. H. Mitchell, Indianola
Wapello.....	G. A. Jardine, New Virginia.....	S. H. Kyle, Washington.....	E. D. Miller, Wellman
Warren.....	F. M. Mahin, Ainsworth.....	C. F. Brubaker, Corydon.....	L. B. Calbreath, Humeston
Washington.....	D. R. Ingraham, Sewal.....	P. C. Otto, Fort Dodge.....	H. E. Nelson, Dayton
Wayne.....	E. F. Bech, Fort Dodge.....	R. M. Dahlquist, Decorah.....	L. C. Kuhn, Decorah
Webster.....	V. J. Horton, Calmar.....	F. D. McCarthy, Sioux City.....	D. B. Blume, Sioux City
Winnebago.....	R. N. Larimer, Sioux City.....	M. P. Allison, Northwood.....	S. S. Westly, Manly
Woodbury.....	B. H. Osten, Northwood.....	J. R. Christensen, Eagle Grove.....	J. H. Sams, Clarion
Worth.....	G. E. Schnug, Dows.....		
Wright.....			

# Roster of Iowa Physicians in Military Service

As of May 25, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Treasure Island, Cal.) Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (APO 230, New York, N. Y.) Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.) ..... A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Trenton, N. J.) ..... Capt., A.U.S.  
Huston, M. D., Centerville (Camp Bowie, Texas) ..... Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 726, Seattle, Wash.) ..... Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (Camp Barkeley, Texas) ..... Capt., A.U.S.  
Bickley, J. W., Waterloo (APO San Francisco, Cal.) ..... Capt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas) ..... Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Ottumwa, Iowa) Lt. Comdr., U.S.N.R.  
Ellyson, C. D., Waterloo (Lido Beach, N. Y.) ..... Lt., U.S.N.R.  
Ericsson, M. G., Cedar Falls (Camp Barkeley, Tex.) Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.) Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
Marquis, A. L., Waterloo (APO 813, New York, N. Y.) ..... Major, A.U.S.  
Marques, F. M., Waterloo (APO 180, Los Angeles, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Banana River, Fla.) Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.) Major, A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. L., Waterloo (Milwaukee, Wis.) ..... Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Ames, Iowa) ..... Lt., U.S.N.R.

## Boone County

Brewster, E. S., Boone (Camp Campbell, Ky.) ..... Major, A.U.S.  
Healy, M. J., Boone  
Shane, R. S., Pilot Mound (Des Moines, Ia.) ..... Lt. Col., A.U.S.

## Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.) ..... Major, A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.) ..... 1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.) ..... Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (APO 9787, New York, N. Y.) ..... Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.) Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho) ..... Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.) ..... Major, A.U.S.

## Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash.) Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rofls, F. O., Parkersburg (Springfield, Mo.) ..... 1st Lt., A.U.S.

## Calthoun County

Grinley, A. V., Rockwell City (APO 507, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.) ..... Capt., A.U.S.  
Peek, L. H., Lake City (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (Camp Carson, Colo.) ..... 1st Lt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Barkeley, Texas) ..... A.U.S.  
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) ..... Capt., A.U.S.  
Cochran, J. L., Carroll (Gulfport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Camp Swift, Texas) ..... Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.) ..... Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.) ..... A.U.S.  
Tindall, R. N., Coon Rapids (APO 948, Seattle, Wash.) ..... Major, A.U.S.  
Wyatt, M. R., Manning (De Ridder, La.) ..... Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (APO 627, New York, N. Y.) ..... Major, A.U.S.  
Longstreth, C. M., Atlantic (Norman, Okla.) Lt. Comdr., U.S.N.R.  
Needles, R. M., Atlantic (APO 526, New York, N. Y.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.) ..... Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) ..... Lt., U.S.N.R.  
Mosher, M. L., West Branch (APO 560, New York, N. Y.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Fort Sam Houston, Texas) ..... Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) ..... Capt., A.U.S.  
Egloff, W. C., Mason City (Chandler, Ariz.) ..... Capt., A.U.S.  
Flickinger, R. R., Mason City (Tuscaloosa, Ala.) ..... Capt., A.U.S.  
Hale, A. E., Dougherty (Camp Shelby, Miss.) ..... Capt., A.U.S.  
Harris, R. H., Mason City (Dyersburg, Tenn.) ..... Capt., A.U.S.  
Harrison, G. E., Mason City (APO 365, New York, N. Y.) ..... Col., A.U.S.  
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 758, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (APO 9379, New York, N. Y.) ..... Capt., A.U.S.  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (Ayer, Mass.) ..... Capt., A.U.S.

## Cherokee County

Bullock, G. D., Washta (Camp Claiborne, La.) ..... Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.) Capt., A.U.S.  
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (Stewart Field, N. Y.) ..... Major, A.U.S.  
Murphey, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) ..... Major, A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.

## Clay County

Edington, F. D., Spencer (Fort Devens, Mass.) ..... Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.) ..... Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Glesne, O. G., Monona (Knoxville, Iowa) ..... Capt., A.U.S.  
Rhombert, E. B., Guttenberg (Camp Wallace, Texas) ..... Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Portland, Ore.) ..... Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.) ..... A.U.S.  
Christensen, E. D., Grand Mound (Iowa City)  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) ..... Capt., A.U.S.  
Hill, D. E., Clinton (Nashville, Tenn.) ..... Capt., A.U.S.  
King, R. C., Clinton (APO 185, Los Angeles, Cal.) ..... Capt., A.U.S.



Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Norment, J. E., Clinton (Washington, D. C.) ..... Lt. Comdr., U.S.N.R.  
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)  
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Snyder, D. C., De Witt  
 Speigel, I. J., Clinton (Clinton, Iowa) ..... 1st Lt., A.U.S.  
 Van Epps, E. F., Clinton (APO 9921, New York, N. Y.) ..... Capt., A.U.S.  
 Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Wells, L. L., Clinton (Clinton, Iowa) ..... Capt., A.U.S.

#### Crawford County

Fee, C. H., Denison (Dunnellon, Fla.) ..... Capt., A.U.S.  
 Grau, A. H., Denison (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maire, E. J., Vail (Seattle, Wash.) ..... Capt., A.U.S.  
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.) ..... Capt., A.U.S.

#### Dallas-Guthrie Counties

Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) Major, A.U.S.  
 Fail, C. S., Adel (Pacific Beach, Wash.) ..... Lt., U.S.N.R.  
 Margolin, J. M., Perry (Camp Cooke, Cal.) ..... Capt., A.U.S.  
 McGilvra, R. I., Guthrie Center (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mullmann, A. J., Adel (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Nicoll, C. A., Panora (Camp Campbell, Ky.) ..... Capt., A.U.S.  
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.) ..... Capt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.) ..... Capt., A.U.S.

#### Davis County

Fenton, C. D., Bloomfield (Camp Ellis, Ill.) ..... Capt., A.U.S.  
 Gilfillan, G. W., Bloomfield (Oceanside, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.) ..... Capt., A.U.S.

#### Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Clark, R. E., Manchester (APO 419, New York, N. Y.) ..... Capt., A.U.S.

#### Des Moines County

Eigenfeld, M. L., Burlington (Camp Bowie, Texas) ..... 1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.) ..... Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.) ..... Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (Fort Lewis, Wash.) Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.) ..... Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sage, E. C., Burlington ..... Lt. Comdr., U.S.N.R.

#### Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henning, G. G., Milford (Camp Adair, Ore.) ..... Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.) ..... Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake (APO New York, N. Y.) ..... Major, A.U.S.

#### Dubuque County

Beddoes, M. G., Cascade (APO 932, San Francisco, Cal.) ..... Capt., A.U.S.  
 Conzett, D. C., Dubuque (APO 645, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio) ..... Capt., A.U.S.  
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.) ..... Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas) ..... 1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.) ..... Major, A.U.S.  
 Langford, W. R., Epworth (APO 948, Seattle, Wash.) ..... Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.) ..... Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.) ..... 1st Lt., A.U.S.  
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.) 1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.) ..... Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.) ..... Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.) ..... Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.) Major, A.U.S.  
 Smith, C. W., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.) ..... Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas) ..... Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Great Lakes, Ill.) ..... Lt. Comdr., U.S.N.R.

#### Emmet County

Clark, J. P., Estherville (APO New York, N. Y.) ..... Capt., A.U.S.  
 Collins, L. E., Estherville (Camp Dodge, Iowa) ..... A.U.S.

Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.) ..... Major, A.U.S.  
 Hess, A. M., West Union (Santa Fe, N. Mex.) ..... Capt., A.U.S.  
 Sulzbach, J. F., Oelwein  
 Walsh, W. E., Hawkeye (Port Chicago, Cal.) Lt. Comdr., U.S.N.R.

#### Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.) ..... Major, A.U.S.  
 Flater, N. C., Floyd (APO 183, Los Angeles, Cal.) ..... Capt., A.U.S.  
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mackie, D. G., Charles City (APO 9539, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Miner, J. B., Jr., Charles City (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.) ..... Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.) ..... Lt., U.S.N.R.  
 Walton, S. G., Hampton (APO New York, N. Y.) ..... Capt., A.U.S.

#### Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.) ..... Capt., A.U.S.  
 Marrs, W. D., Tabor (Wright Field, Ohio) ..... Capt., A.U.S.  
 Powell, R. A., Farragut (Great Lakes, Ill.) ..... Lt. (jg), U.S.N.R.  
 Wanamaker, A. R., Hamburg (Los Angeles, Cal.) ..... Capt., A.U.S.

#### Greene County

Cartwright, F. P., Grand Junction (Geiger Field, Wash.) ..... Capt., A.U.S.  
 Castles, W. A., Jr., Rippey (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.) ..... Capt., A.U.S.  
 Jongeward, A. J., Jefferson (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Limburg, J. I., Jr., Jefferson (APO 503, San Francisco, Cal.) ..... Major, A.U.S.  
 Lohr, P. E., Churdan (San Diego, Cal.) ..... A.U.S.

#### Grundy County

Rose, J. E., Grundy Center (Des Moines, Iowa) ..... Lt. Comdr., U.S.N.R.

#### Hamilton County

Buxton, O. C., Webster City (Fort Ord, Cal.) ..... 1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.) Major, A.U.S.  
 James, D. W., Kamrar (APO 782, New York, N. Y.) ..... Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 383, New York, N. Y.) ..... Major, A.U.S.  
 Mooney, F. P., Jewell (London, England) ..... Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Barkeley, Texas) ..... Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.) ..... Capt., A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.) ..... Capt., A.U.S.

#### Hancock-Winnebagos Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.) ..... Capt., A.U.S.  
 Dulmes, A. H., Klemme (APO 4778, New York, N. Y.) ..... Capt., A.U.S.  
 Eller, L. W., Kanawha (APO 302, New York, N. Y.) ..... Capt., A.U.S.  
 Irish, T. J., Forest City (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Delhart, Tex.) ..... Major, A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.) ..... Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.) ..... Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.) ..... Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Ft. Sill, Okla.) ..... Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.) ..... Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.) ..... 1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.) Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Benning, Ga.) ..... A.U.S.  
 Burbridge, G. E., Logan (APO 511, New York, N. Y.) ..... Major, A.U.S.  
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.) ..... Capt., A.U.S.  
 Heise, C. A., Jr., Missouri Valley  
 Tamisiea, F. X., Missouri Valley (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) ..... Major, A.U.S.

Dwankowski, Carl, Mt. Pleasant (APO 505, New York, N. Y.).....Capt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (Fort McPherson, Ga.).....Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (Yuma, Ariz.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 15195, San Francisco, Cal.).....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.  
 Martin, J. W., Holstein (Montgomery, Ala.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

#### Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.  
 Gittler, Ludwig, Fairfield (APO 1001, New York, N. Y.).....Lt. Col., A.U.S.  
 Graber, H. E., Fairfield Galesburg, Ill.....Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

#### Johnson County

Agnew, J. W., Iowa City (Trinidad, Colo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (Clinton, Iowa).....Major, A.U.S.  
 Boiler, W. F., Iowa City (Fort Leonard Wood, Mo.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.  
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (El Toro, Cal.).....Lt., U.S.N.R.  
 Cooper, W. K., Iowa City (Randolph Field, Texas).....Capt., A.U.S.  
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Key West, Fla.).....Lt., U.S.N.R.  
 Dörner, R. A., Iowa City (APO 534, New York, N. Y.).....Capt., A.U.S.  
 Elmquist, H. S., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Emmons, H. S., Iowa City (Ablene, Texas).....Capt., A.U.S.  
 Flax, Ellis, Iowa City (Edwight, W. Va.).....Capt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourt, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.  
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York, N. Y.).....Major, A.U.S.  
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.  
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (Camp Forrest, Tenn.).....Capt., A.U.S.  
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 January, L. E., Iowa City (McCook, Nebr.).....Capt., A.U.S.  
 Kanealy, J. F., Iowa City.....Capt., A.U.S.  
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Longwell, F. H., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.  
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagyfy, S. F., Iowa City (Memphis, Tenn.).....Lt. (jg), U.S.N.R.  
 Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Parkin, G. L., Iowa City (Mountain Home, Idaho) 1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 1001, New York, N. Y.).....Lt. Col., A.U.S.  
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.  
 Sells, R. L., Jr., Iowa City (South San Francisco, Cal.).....Capt., A.U.S.  
 Smith, H. F., Iowa City (New York, N. Y.) Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.) 1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.  
 Stump, R. B., Iowa City (Fort Leonard Wood, Mo.).....Capt., A.U.S.

Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.  
 Trapasso, T. J., Iowa City (Patterson Field, Ohio) 1st Lt., A.U.S.  
 Trussell, R. E., Iowa City (Ft. McPherson, Ga.).....1st Lt., A.U.S.  
 Vest, W. M., Iowa City (APO 928, San Francisco, Cal.).....Capt., A.U.S.  
 Ward, R. H., Iowa City (Cherry Point, N. C.).....Lt. Comdr., U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 923, San Francisco, Cal.).....1st Lt., A.U.S.  
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

#### Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.) 1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.) Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.  
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.) 1st Lt., A.U.S.  
 Connole, J. F., Iowa City (Camp Bowie, Texas) 1st Lt., A.U.S.  
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.) 1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.) 1st Lt., A.U.S.  
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman, A. L., Iowa City (Palm Springs, Cal.) 1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.  
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Hendricks, A. B., Iowa City (Farragut, Idaho).....Lt., U.S.N.  
 Hovis, Wm., Iowa City (San Diego, Cal.).....Lt. (jg), U.S.N.R.  
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.  
 Jacobs, C. A., Iowa City (APO New York, N. Y.) Major, A.U.S.  
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Kell, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Treasure Island, Cal.).....Lt. (jg), U.S.N.R.  
 Keleher, M. F., Iowa City (Great Lakes, Ill.) Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.  
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.  
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Moen, B. H., Iowa City.....Capt., A.U.S.  
 Moen, R. E., Iowa City (APO New York, N. Y.) 1st Lt., A.U.S.  
 Odell, Lester, Iowa City (Alameda, Cal.).....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.) 1st Lt., A.U.S.  
 Pulliam, R. L., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.  
 Randall, C. G., Iowa City.....Capt., A.U.S.  
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.  
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.  
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shapiro, S. I., Iowa City.....Capt., A.U.S.  
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.  
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.  
 Skouge, O. T., Iowa City.....Capt., A.U.S.  
 Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.  
 Watters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.  
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.  
 Williams, L. A., Iowa City (Treasure Island, Cal.) 1st Lt., A.U.S.  
 Willumsen, H. C., Iowa City (Chico, Cal.).....Capt., A.U.S.  
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.  
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Zahrt, N. E., Iowa City (Miami Beach, Fla.).....1st Lt., A.U.S.  
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.) 1st Lt., A.U.S.

#### Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.  
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.  
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.  
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.  
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.).....Capt., A.U.S.

#### Kossuth County

Clapsaddle, D. W., Burt (APO 508, New York, N. Y.).....Capt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Williams, R. L., Lakota (San Francisco, Cal.).....Lt. Comdr., U.S.N.R.



**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) ..... Capt., A.U.S.  
 Cooper, R. E., Keokuk (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.  
 Johnstone, A. A., Keokuk (Camp Fannin, Texas) ..... Col., A.U.S.  
 McKee, T. L., Keokuk (APO 928, San Francisco, Cal.) ..... Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.  
 Rankin, J. R., Keokuk (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) ..... Capt., A.U.S.  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) ..... Capt., A.U.S.  
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Lincoln County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) ..... Major, A.U.S.  
 Berney, P. W., Cedar Rapids (San Francisco, Cal.) Capt., A.U.S.  
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.) ..... Capt., A.U.S.  
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) ..... Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) ..... A.U.S.  
 Courter, W. O., Springville (APO 464, New York, N. Y.) ..... Major, A.U.S.  
 Crew, P. I., Marion (Monroe, La.) ..... Capt., A.U.S.  
 Downing, J. S., Cedar Rapids (APO 713, Unit II, San Francisco, Cal.) ..... Major, A.U.S.  
 Dunn, F. C., Cedar Rapids (Kearney, Nebr.) ..... Major, A.U.S.  
 Gearhart, Merriam, Springville (Phoenixville, Pa.) ..... Major, A.U.S.  
 Halpin, L. J., Cedar Rapids (Atlanta, Ga.) ..... Major, A.U.S.  
 Hecker, J. T., Cedar Rapids (Oxnard, Cal.) ..... 1st Lt., A.U.S.  
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Keith, J. J., Marion (Palo Alto, Cal.) ..... Major, A.U.S.  
 Kieck, E. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Kruckenberg, W. G., Mount Vernon (Portsmouth, Leedom, Charles, Springville) ..... Major, A.U.S.  
 Locher, R. C., Cedar Rapids (Camp Swift, Texas) ..... Major, A.U.S.  
 MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) ..... Capt., A.U.S.  
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) ..... Major, A.U.S.  
 McQuiston, J. S., Cedar Rapids (Salina, Kan.) ..... Major, A.U.S.  
 Meffert, C. B., Cedar Rapids (Nashville, Tenn.) ..... Major, A.U.S.  
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) ..... Major, A.U.S.  
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) ..... 1st Lt., A.U.S.  
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) ..... Major, A.U.S.  
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Lt. Comdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (Camp Blanding, Fla.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stansbury, J. R., Cedar Rapids (APO 941, Seattle, Wash.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO 957, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 34, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) ..... Lt. Comdr., U.S.N.R.

**Louisiana County**

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Lucas County**

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

**Lyon County**

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Major, A.U.S.  
 Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 700, New York, N. Y.) ..... Capt., A.U.S.

**Madison County**

Boden, H. N., Truro (Fresno, Cal.) ..... Capt., A.U.S.  
 Chesnut, P. F., Winterset (Salem, Ore.) ..... Lt. Col., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Capt., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.

**Mahaska County**

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) ..... Major, A.U.S.

Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Mare Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) Lt. Comdr., U.S.N.R.  
 Lemon, K. M., Oskaloosa ..... 1st Lt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) ..... Capt., A.U.S.

**Marion County**

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) ..... Major, A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Bastrop, Texas) ..... 1st Lt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

**Marshall County**

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) Major, A.U.S.  
 Meyer, M. G., Marshalltown (Ft. Geo. Meade, Md.) Major, A.U.S.  
 Noonan, J. J., Marshalltown (APO 928, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 730, Seattle, Wash.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (APO 520, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (Portland, Ore.) ..... Capt., A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) ..... 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (Fort Riley, Kan.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Mills County**

DeYoung, W. A., Glenwood (APO 813, New York, N. Y.) ..... Capt., A.U.S.  
 Magaret, E. C., Glenwood (APO 462, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 230, New York, N. Y.) ..... Capt., A.U.S.

**Mitchell County**

Culbertson, R. A., St. Ansgar (Camp Campbell, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (Camp Mackall, N. C.) ..... Major, A.U.S.  
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

**Monona County**

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... Capt., A.U.S.  
 Anderson, S. N., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 928, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gaukel, L. A., Onawa (Vancouver, Wash.) ..... Capt., A.U.S.  
 Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Rosecrans, Cal.) ..... A.U.S.  
 Wainwright, M. T., Mapleton (APO 939, Seattle, Wash.) ..... A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

**Mourne County**

Gilliland, C. H., Albia (Quonset Point, R. I.) ..... Lt., U.S.N.R.  
 Heimann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Capt., A.U.S.  
 Smith, R. A., Albia (New Cumberland, Pa.) ..... Capt., A.U.S.

**Montgomery County**

Bastron, H. C., Red Oak (APO 953, San Francisco, Cal.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

**Muscataine County**

Ady, A. E., West Liberty (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Capt., A.U.S.  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO, Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) ..... Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Lt. Col., A.U.S.

**O'Brien County**

Getty, E. B., Primghar (APO 117, New York, N. Y.).....Capt., A.U.S.  
Hayne, W. W., Paulina (APO 638, New York, N. Y.).....Capt., A.U.S.  
Moen, S. T., Hartley (APO 3492, New York, N. Y.).....Major, A.U.S.  
Myers, K. W., Sheldon (Watertown, S. Dak.).....1st Lt., A.U.S.

**Osceola County**

Kuntz, G. S., Sibley (APO 34, New York, N. Y.)....Capt., A.U.S.

**Page County**

Barnes, C. A., Shenandoah (Fort Bragg, N. C.)....Capt., A.U.S.  
Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.).....Capt., A.U.S.  
Bossingham, E. N., Clarinda (APO 923, San Francisco, Cal.).....Capt., A.U.S.  
Bunch, H. McK., Shenandoah (Farragut, Idaho).....Lt. Comdr., U.S.N.R.  
†Burdick, F. D., Shenandoah (APO, New York, N. Y.).....Capt., A.U.S.  
Burnett, F. K., Clarinda (APO 928, San Francisco, Cal.).....Major, A.U.S.  
Rausch, G. R., Clarinda (Wendover Field, Utah).....Capt., A.U.S.  
Savage, L. W., Shenandoah (Fort Meade, Md.)....1st Lt., A.U.S.

**Palo Alto County**

Davey, W. P., Emmetsburg (San Diego, Cal.)..Lt. (ig), U.S.N.R.

**Plymouth County**

Bowers, C. V., LeMars (APO New York, N. Y.)..1st Lt., A.U.S.  
Fisch, R. J., LeMars (Carlisle Barracks, Pa.)....1st Lt., A.U.S.  
Foss, R. H., Remsen (Salt Lake City, Utah).....Capt., A.U.S.  
Wolfson, Harold, Kingsley (Fort Lewis, Wash.)..Capt., A.U.S.

**Pocahontas County**

Blair, F. L., Jr., Fonda (San Antonio, Texas)....Lt., U.S.N.R.  
Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.).....Capt., A.U.S.  
Larson, J. B., Laurens (APO 720, San Francisco, Cal.).....Capt., A.U.S.  
Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.).....Capt., A.U.S.

**Polk County**

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
Anderson, N. B., Des Moines (APO 600, New York, N. Y.).....Lt. Col., A.U.S.  
Angell, C. A., Des Moines (Camp Maxey, Texas)....Capt., A.U.S.  
Anspach, R. S., Mitchellville (APO 528, New York, N. Y.).....Lt. Col., A.U.S.  
Barnes, J. L., Des Moines (Atlanta, Ga.).....Major, A.U.S.  
Barnes, B. C., Des Moines (Ogden, Utah).....Capt., A.U.S.  
Bates, M. T., Des Moines (Fleet PO, New York, N. Y.).....Lt. Comdr., U.S.N.R.  
Bender, H. R., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
Bond, T. A., Des Moines (Shoemaker, Cal.).....Lt., U.S.N.R.  
Bone, H. C., Des Moines (Riverside, Cal.).....Capt., A.U.S.  
Brown, A. W., Des Moines (Rochester, Minn.)....Capt., A.U.S.  
Bruner, J. M., Des Moines (Fort Bliss, Texas)....Major, A.U.S.  
Bruns, P. D., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
†Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriessgef-Offizierlager XXI B, Deutschland [Allemagne]).....Capt., A.U.S.  
Caldwell, J. W., Des Moines (Vulcan, Alberta, Canada).....Flight Lt., R.C.A.F.  
Chambers, J. W., Des Moines (Concordia, Kan.)....1st Lt., A.U.S.  
Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.).....Capt., A.U.S.  
Connell, J. R., Des Moines.....Capt., A.U.S.  
Corn, H. H., Des Moines (St. Louis, Mo.).....Capt., A.U.S.  
Coughlan, D. W., Des Moines (APO 9875, New York, N. Y.).....Capt., A.U.S.  
Crowley, D. F., Jr., Des Moines (Presque Isle, Me.)..Capt., A.U.S.  
Crowley, F. A., Des Moines (APO 783, New York, N. Y.).....1st Lt., A.U.S.  
DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.).....Capt., A.U.S.  
Decker, H. G., Des Moines (Long Beach, Cal.).....Lt. Comdr., U.S.N.R.  
Downing, A. H., Des Moines (Fort Snelling, Minn.)..1st Lt., A.U.S.  
Dushkin, M. A., Des Moines (APO 628, New York, N. Y.).....Major, A.U.S.  
Elliott, O. A., Des Moines (Pecos, Texas).....Capt., A.U.S.  
Ellis, H. G., Des Moines (Kearney, Nebr.).....Capt., A.U.S.  
Ervin, L. J., Des Moines (Lubbock, Texas).....Major, A.U.S.  
Fried, David, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
Fracasse, John, Des Moines.....1st Lt., A.U.S.  
George, E. M., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
Gerchek, E. W., Des Moines.....Major, A.U.S.  
Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.).....Major, A.U.S.  
Glomset, D. A., Des Moines (APO 9826 New York, N. Y.).....Capt., A.U.S.  
Goldberg, Louie, Des Moines (APO 9764, San Francisco, Cal.).....Capt., A.U.S.

Gordon, A. M., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
Greek, L. M., Des Moines (APO 512, New York, N. Y.).....Capt., A.U.S.  
Gurau, H. H., Des Moines (Santa Ana, Cal.).....Capt., A.U.S.  
Haines, D. J., Des Moines (APO 913, San Francisco, Cal.).....Capt., A.U.S.  
Harris, D. D., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. (ig), U.S.N.R.  
Harris, H. L., Des Moines (Salina, Kan.).....1st Lt., A.U.S.  
Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
James, A. D., Des Moines (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
Johnston, C. H., Des Moines (APO 639, New York, N. Y.).....Lt. Col., A.U.S.  
Kast, D. H., Des Moines (Los Angeles, Cal.).....Capt., A.U.S.  
Kelley, E. J., Des Moines (Marshall, Mo.).....Lt. Comdr., U.S.N.R.  
Kelly, D. H., Des Moines (Denver, Colo.).....Lt. Col., A.U.S.  
Klockslem, H. L., Des Moines.....Lt. (ig), U.S.N.R.  
Kottke, E. E., Des Moines (Temple, Texas).....Capt., A.U.S.  
Landis, S. N., Des Moines (West Palm Beach, Fla.).....1st Lt., A.U.S.  
La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
Lederman, James, Des Moines.....1st Lt., R.C.A.  
Lehman, E. W., Des Moines (Memphis, Tenn.)....Major, A.U.S.  
Losh, C. W., Jr., Des Moines (Jackson, Miss.)....1st Lt., A.U.S.  
Lovejoy, E. F., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
Maloney, P. J., Des Moines (Fort Lewis, Wash.)....1st Lt., A.U.S.  
Marquis, G. S., Des Moines (Chicago, Ill.).....Lt. Comdr., U.S.N.R.  
Martin, L. E., Des Moines (Helena, Ark.).....1st Lt., A.U.S.  
Mauritz, E. L., Des Moines (APO 763, New York, N. Y.).....Capt., A.U.S.  
McCoY, H. J., Des Moines (Iowa City, Iowa).....Comdr., U.S.N.R.  
McDonald, D. J., Des Moines (Ft. Sam Houston, Texas).....Major, A.U.S.  
McNamee, J. H., Des Moines (Oakland, Cal.).....Lt. Comdr., U.S.N.R.  
Mencher, E. W., Des Moines.....1st Lt., A.U.S.  
Merkel, B. M., Des Moines (APO 520, New York, N. Y.).....Major, A.U.S.  
Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.).....Capt., A.U.S.  
Morden, R. P., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.  
Mumma, C. S., Des Moines (Los Angeles, Cal.)....Major, A.U.S.  
Murphy, J. H., Des Moines (Barstowe, Cal.).....Lt., U.S.N.R.  
Nelson, A. L., Des Moines (Camp Livingston, La.) Major, A.U.S.  
Noun, L. J., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
Noun, M. H., Des Moines (APO 514, New York, N. Y.).....Major, A.U.S.  
Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.).....Lt., U.S.N.  
Patton, B. W., Des Moines (Camp Robinson, Ark.).....1st Lt., A.U.S.  
Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.).....Major, A.U.S.  
Peisen, C. J., Des Moines (APO 9301, New York, N. Y.).....Capt., A.U.S.  
Penn, E. C., West Des Moines (APO 4062, New York, N. Y.).....Capt., A.U.S.  
Pfeiffer, E. P., Des Moines (Springfield, Mo.)....Capt., A.U.S.  
Phillips, A. B., Des Moines (Corona, Cal.).....Lt., U.S.N.R.  
Porter, R. J., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.  
Powell, L. D., Des Moines (Long Beach, Cal.)....Capt., U.S.N.R.  
Pratt, E. B., Des Moines (APO New York, N. Y.)..Capt., A.U.S.  
Prestley, J. B., Des Moines (Camp Phillips, Kan.)..Major, A.U.S.  
Purdy, W. O., Des Moines (Camp Howze, Texas)....Capt., A.U.S.  
Riegelman, R. H., Des Moines (APO 634, New York, N. Y.).....Major, A.U.S.  
Robinson, V. C., Des Moines (Tampa, Fla.).....Capt., A.U.S.  
Rotkow, M. J., Des Moines (Louisville, Ky.).....Capt., A.U.S.  
Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.  
Shepherd, L. K., Des Moines (APO New York, N. Y.).....Major, A.U.S.  
Shiffer, H. K., Des Moines (APO New York, N. Y.)..Capt., A.U.S.  
Singer, P. L., Des Moines (Camp Grant, Ill.).....1st Lt., A.U.S.  
Skultety, J. A., Des Moines (New Orleans, La.).....1st Lt., U.S.P.H.S.  
Smead, H. H., Des Moines (APO 595, New York, N. Y.).....Capt., A.U.S.  
Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.).....Capt., A.U.S.  
Snodgrass, R. W., Des Moines (Fort Rosecrans, Cal.).....Capt., A.U.S.  
Snyder, G. E., Grimes (APO 709, San Francisco, Cal.).....Major, A.U.S.  
Sohm, H. A., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.  
Springer, F. A., Des Moines (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.



Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.  
 Stickler, Robert, Des Moines (Fort Benning, Ga.)...Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (APO 403, New York,  
 N. Y.).....Major, A.U.S.  
 Toubes, A. A., Des Moines (APO 635, New York,  
 N. Y.).....Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas)....Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.)...1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (APO 515, New York,  
 N. Y.).....Capt., A.U.S.  
 Vaubel, E. K., Des Moines (Silver Spring, Md.)....Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.)...1st Lt., A.U.S.  
 Willett, W. M., Des Moines (APO 873, New York,  
 N. Y.).....Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.  
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.)....Capt., A.U.S.

#### Pottawattamie County

‡Beaumont, F. H., Council Bluffs (APO 34, New York,  
 N. Y.).....Major, A.U.S.  
 Cogley, J. P., Council Bluffs (APO 322, Unit I, San Fran-  
 cisco, Cal.).....Lt. Col., A.U.S.  
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco,  
 Cal.).....Lt., U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.)....Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Olathe, Kan.).....Lt. Comdr., U.S.N.R.  
 Floersch, E. B., Council Bluffs (Bremerton,  
 Wash.).....Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Fleet PO, San Fran-  
 cisco, Cal.).....Lt., U.S.N.R.  
 Jensen, A. L., Council Bluffs (Temple, Texas)....Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego,  
 Cal.).....Lt., U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.)...Capt., A.U.S.  
 Lambert, E. M., Council Bluffs (APO 9907, New York,  
 N. Y.).....Capt., A.U.S.  
 Maiden, S. D., Council Bluffs (Camp Hood, Texas)....Major, A.U.S.  
 Martin, L. R., Council Bluffs (APO 923, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Mathiasen, H. W., Council Bluffs (Alexandria, La.)...Capt., A.U.S.  
 Moskovitz, J. M., Council Bluffs (APO 5255, New York,  
 N. Y.).....Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island,  
 N. Y.).....Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (Springfield, Mo.)...Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 600, New York,  
 N. Y.).....Capt., A.U.S.  
 Treyvor, J. V., Council Bluffs (Fleet PO, San Fran-  
 cisco, Cal.).....Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (APO 552, New York,  
 N. Y.).....1st Lt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.)....A.U.S.  
 Wurl, O. A., Council Bluffs (APO 871, New York,  
 N. Y.).....Capt., A.U.S.

#### Poweshiek County

Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.)...Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.)...1st Lt., A.U.S.  
 Korfmacher, E. S., Grinnell (San Francisco,  
 Cal.).....Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco,  
 Cal.).....Capt., A.U.S.  
 Parish, J. R., Grinnell (Fleet PO, San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.  
 Somers, P. E., Grinnell (St. Louis, Mo.).....1st Lt., A.U.S.

#### Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.)....Major, A.U.S.

#### Sac County

Bassett, G. H., Sac City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 1001, New York,  
 N. Y.).....Capt., A.U.S.  
 Evans, W. I., Sac City (APO 9212, New York,  
 N. Y.).....Capt., A.U.S.  
 Klocksiesm, R. G., Odebolt (Fleet PO, San Francisco,  
 Cal.).....Lt. (jg), U.S.N.R.  
 Neu, H. N., Sac City (APO 708, San Francisco,  
 Cal.).....Major, A.U.S.

#### Scott County

Baker, R. W., Davenport (APO 511, New York,  
 N. Y.).....Capt., A.U.S.  
 Balzer, W. J., Davenport (APO 939, Seattle, Wash.)...Capt., A.U.S.  
 Bishop, J. F., Davenport (APO 729, Seattle,  
 Wash.).....Capt., A.U.S.  
 Block, L. A., Davenport (Clinton, Iowa).....Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York,  
 N. Y.).....Capt., A.U.S.  
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.  
 Brown, D. H., Davenport (Waycross, Ga.).....Capt., A.U.S.  
 Brown, M. J., Davenport (Camp Hale, Colo.)....Major, A.U.S.  
 Carey, E. T., Davenport (APO 928, San Francisco,  
 Cal.).....1st Lt., A.U.S.  
 Christiansen, C. C., Dixon (APO 961, San Fran-  
 cisco, Cal.).....Capt., A.U.S.

Coleman, Tom, Davenport (Camp Stewart, Ga.)...1st Lt., A.U.S.  
 Cummins, G. M., Jr., Davenport.....1st Lt., A.U.S.  
 Decker, C. E., Davenport (Oklahoma City,  
 Okla.).....1st Lt., A.U.S.  
 Evans, H. J., Davenport (Ft. Bragg, N. C.)....Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.)....Major, A.U.S.  
 Gonne, Wm., Jr., Davenport (Camp White, Ore.)...1st Lt., A.U.S.  
 Hurevitz, H. M., Davenport (APO 370, New York,  
 N. Y.).....Major, A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York,  
 N. Y.).....1st Lt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Barkeley,  
 Texas).....Major, A.U.S.  
 Kimberly, L. W., Davenport (New Orleans, La.)...Capt., A.U.S.  
 Krakauer, Max, Davenport (Camp Breckenridge,  
 Ky.).....Capt., A.U.S.  
 Kuhl, A. B., Jr., Davenport (Carlisle Barracks,  
 Pa.).....1st Lt., A.U.S.  
 LaDage, L. H., Davenport (APO 180, Los Angeles,  
 Cal.).....Major, A.U.S.  
 Lorfeld, G. W., Davenport (Columbus, Ohio)....Capt., A.U.S.  
 Marker, J. I., Davenport (Ft. Des Moines, Iowa)....Col., M.R.C.  
 McMeans, T. W., Davenport (APO 514, New York,  
 N. Y.).....1st Lt., A.U.S.  
 Neufeld, R. J., Davenport (APO 9575, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Perkins, R. M., Davenport (Carlisle Barracks,  
 Pa.).....1st Lt., A.U.S.  
 Sheeler, I. H., Davenport (Camp Crowder, Mo.)...Capt., A.U.S.  
 Shorey, J. R., Davenport (Denver, Colo.)....Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 230, New York,  
 N. Y.).....Capt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.)...Lt. Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (APO 322, San Fran-  
 cisco, Cal.).....Capt., A.U.S.  
 Weinberg, H. B., Davenport (Fort Benning, Ga.)...Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.)....Capt., A.U.S.

#### Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho)....Lt. Comdr., U.S.N.R.  
 Griffith, W. O., Shelby (APO 9490, New York,  
 N. Y.).....Capt., A.U.S.  
 McGowan, J. P., Harlan (Fleet PO, San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.

#### Sioux County

Gleysteen, R. R., Alton (Silver Spring, Md.)...Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (APO 572, New York,  
 N. Y.).....Capt., A.U.S.  
 Larson, M. O., Hawarden (Camp Bowie, Texas)....Major, A.U.S.  
 Oelrich, A. M., Hull (APO New York, N. Y.)....1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.)...1st Lt., A.U.S.

#### Story County

Conner, J. D., Nevada (APO 708, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Fellows, J. G., Ames (Camp Breckenridge, Ky.)...Major, A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.)....Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.)....Lt., U.S.N.R.  
 McFarland, J. E., Ames (Farragut, Idaho)....Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (Del Valle, Texas)....Capt., A.U.S.  
 Sperow, W. B., Nevada (San Diego, Cal.)....Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamogordo, N. Mex.)....Major, A.U.S.  
 Wall, David, Ames (Carlisle Barracks, Pa.)....1st Lt., A.U.S.

#### Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.)...Capt., A.U.S.  
 Boller, G. C., Traer (Camp Bowie, Texas)  
 Dobias, S. G., Chelsea (APO 937, Seattle, Wash.)...Capt., A.U.S.  
 Havlik, A. J., Tama (San Diego, Cal.).....Lt., U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.)  
 Standefer, J. M., Tama (Port Hueneme, Cal.)....Lt., U.S.N.R.

#### Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco,  
 Cal.).....1st Lt., A.U.S.

#### Union County

Beatty, H. G., Creston (New Orleans, La.).....1st Lt., A.U.S.  
 Paragas, M. R., Creston (APO 9633, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.).....Capt., A.U.S.

#### Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York,  
 N. Y.).....1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO New York, N. Y.)...Major, A.U.S.  
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.)...Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.)....Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (Camp Butler, N. C.)....Capt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa.....Capt., A.U.S.  
 Prewitt, L. H., Ottumwa (Atlantic City, N. J.)....Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas)....Lt. Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.)....Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego,  
 Cal.).....Lt. Comdr., U.S.N.R.  
 Wolfe, W. C., Ottumwa (Fleet PO, San Francisco,  
 Cal.).....Lt. (jg) U.S.N.R.

#### Warren County

Fullgrabe, E. A., Indianola (San Diego, Cal.)....Lt., U.S.N.R.  
 Hoffman, G. R., Lacona (Camp San Louis Obispo,  
 Cal.).....Capt., A.U.S.

Shaw, E. E., Indianola (APO 834, New Orleans, La.) .....Capt., A.U.S.  
Trueblood, C. A., Indianola (APO 730, Seattle, Wash.) .....Capt., A.U.S.

Washington County

Boice, C. L., Washington (Fleet PO, New York, N. Y.) .....Lt., U.S.N.  
Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) .....Comdr., U.S.N.R.  
Mast, T. M., Washington (Portland, Ore.) .....Lt., U.S.N.R.  
Miller, J. R., Wellman (Camp Breckenridge, Ky.) .....1st Lt., A.U.S.  
Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
Ware, S. C., Kalona (APO 15275, New York, N. Y.) .....Capt., A.U.S.

Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) .....Capt., A.U.S.

Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.) .....Capt., A.U.S.  
Burch, E. S., Dayton (APO 709, San Francisco, Cal.) .....Capt., A.U.S.  
Burleson, M. W., Fort Dodge (Monterey, Cal.) .....1st Lt., A.U.S.  
Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa) .....Major, A.U.S.  
Dawson, E. B., Fort Dodge (San Diego, Cal.) .....Lt. Comdr., U.S.N.R.  
Glesne, O. N., Ft. Dodge (New River, N. C.) .....Lt. Comdr., U.S.N.R.  
Joyner, N. M., Fort Dodge (Brooklyn Field, Ala.) .....Lt. Comdr., U.S.N.R.  
Kluever, H. C., Fort Dodge (Pensacola, Fla.) .....Lt. Comdr., U.S.N.R.  
Larsen, H. T., Fort Dodge (Pensacola, Fla.) .....Lt., U.S.N.R.  
Shrader, J. C., Fort Dodge (Camp Forrest, Tenn.) .....Major, A.U.S.  
Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) .....Capt., A.U.S.  
Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) .....Capt., A.U.S.  
Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.) .....Capt., A.U.S.

Winneshiek County

Fritchen, A. F., Decorah (Treasure Island, Cal.) .....Comdr., U.S.N.R.  
Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) .....Lt. Col., A.U.S.  
Howard, W. H., Decorah .....Capt., A.U.S.  
Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
Svendsen, R. N., Decorah (San Diego, Cal.) .....Lt. (jg), U.S.N.R.  
Van Besien, G. J., Decorah (APO New York, N. Y.) .....1st Lt., A.U.S.

Woodbury County

Bettler, P. L., Sioux City (APO 962, New York, N. Y.) .....Major, A.U.S.  
Blackstone, M. A., Sioux City (Camp Stoneman, Cal.) .....Capt., A.U.S.  
Boe, Henry, Sioux City (APO 709, San Francisco, Cal.) .....Capt., A.U.S.  
Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) .....Capt., A.U.S.  
Cowan, J. A., Sioux City (Oklahoma City, Okla.) .....Major, U.S.P.H.S.  
Crowder, R. E., Sioux City (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
Dimsdale, L. J., Sioux City (Clinton, Iowa) .....1st Lt., A.U.S.  
Down, H. I., Sioux City (Ft. Devens, Mass.) .....Lt. Col., A.U.S.  
Elson, V. J., Danbury (APO 9875, New York, N. Y.) .....Capt., A.U.S.  
Frank, L. J., Sioux City (Vallejo, Cal.) .....Comdr., U.S.N.R.  
Graham, J. W., Sioux City (Pensacola, Fla.) .....Lt. Comdr., U.S.N.R.  
Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) .....Capt., A.U.S.  
Harris, D. M., Sioux City (Carlisle Barracks, Pa.) .....Capt., A.U.S.  
Heffernan, C. E., Sioux City (Peterson Field, Colo.) .....Capt., A.U.S.  
Hicks, W. K., Sioux City (Spokane, Wash.) .....Major, A.U.S.  
Honke, E. M., Sioux City (Palm Springs, Cal.) .....Major, A.U.S.  
Kaplan, David, Sioux City (APO 36, New York, N. Y.) .....Capt., A.U.S.  
Knott, P. D., Sioux City (Camp Crowder, Mo.) .....Capt., A.U.S.  
Knott, R. C., Sioux City (Fort Bragg, N. C.) .....Major, A.U.S.  
Krigsten, W. M., Sioux City (Springfield, Mo.) .....Lt. Col., A.U.S.  
Lande, J. N., Sioux City (Santa Fe, N. Mex.) .....Major, A.U.S.  
Martin, R. F., Sioux City (APO 652, New York, N. Y.) .....Capt., A.U.S.  
Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) .....1st Lt., A.U.S.  
McCustion, H. M., Sioux City (APO 813, New York, N. Y.) .....Capt., A.U.S.  
Muxan, R. C., Sioux City (APO 528, New York, N. Y.) .....Capt., A.U.S.  
Osineup, P. W., Sioux City (APO 9101, New York, N. Y.) .....Capt., A.U.S.  
Rarick, I. H., Sioux City (APO 980, Seattle, Wash.) .....Capt., A.U.S.  
Reeder, J. E., Jr., Sioux City (APO 9648, New York, N. Y.) .....Capt., A.U.S.  
Ryan, M. J., Sioux City (Topeka, Kan.) .....Capt., A.U.S.  
Schwartz, J. W., Sioux City (Ft. Leavenworth, Kan.) .....Lt. Col., A.U.S.  
Tracy, J. S., Sioux City (Ephrata, Wash.) .....Capt., A.U.S.

Worth County

Westly, G. S., Manly (APO 4580, San Francisco, Cal.) .....Major, A.U.S.

Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.) .....Capt., A.U.S.  
Bird, R. G., Clarion (Sacramento, Cal.) .....Lt. Comdr., U.S.N.R.  
Doles, E. A., Clarion (Phoenix, Ariz.) .....Lt., U.S.N.R.  
Gorrell, R. L., Clarion (Buffalo, N. Y.) .....Lt., U.S.N.R.  
Leinbach, S. P., Belmond (Farragut Air Base, Idaho) .....Capt., A.U.S.  
Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) .....Capt., A.U.S.

(\*) Reported missing in action.  
(†) Reported killed in action.  
(‡) Reported prisoner of war.

OLD COMMISSIONS SOUGHT BY NAVAL MEDICAL CENTER

The National Naval Medical Center of Bethesda, Maryland, is endeavoring to collect for its archives a complete set of commissions issued to Naval medical officers, and signed by past Presidents of the United States.

There is now a small nidus at the Center and it is hoped that this may be built up to completion. Through the Navy Department Library and the National Archives, a few more have been located. Any libraries or individuals who may have such old commissions in their possession and would be willing to turn them over to the Center, could find no more fitting enshrinement of them than their use for this purpose.

AMERICAN CONGRESS OF PHYSICAL THERAPY WILL HOLD ANNUAL SESSION

The American Congress of Physical Therapy will hold its twenty-third annual scientific and clinical session September 6, 7, 8 and 9, 1944, inclusive, at the Hotel Statler, Cleveland, Ohio. Rehabilitation is in the spotlight today; physical therapy plays an important part in this work. The annual instruction course will be held from 8:00 to 10:30 a. m., and from 1:00 to 2:00 p. m. during the days of September 6, 7 and 8. The scientific and clinical sessions will be given on the remaining portions of these days and evenings. All of these sessions will be open to the members of the regular medical profession and their qualified aides. For information concerning the instruction course and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago 2, Illinois.

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# WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

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*Secretary*—MRS. ALLEN C. STARRY, Sioux City

*Treasurer*—MRS. ARTHUR E. MERKEL, Des Moines

## CONVENTION NOTES

The fifteenth Annual Convention of the Woman's Auxiliary to the Iowa State Medical Society was held at Hotel Kirkwood in Des Moines April 20 and 21, 1944. Mrs. W. S. Reiley of Red Oak, President, presided at the meeting.

On Thursday morning state board members presented annual reports. Iowa still has fifteen counties organized with an individual membership of 316. There has been a loss of twenty members during the past year due to war conditions. The Nurses' Loan Fund now boasts \$386.26 in the treasury. General suggestions for the betterment of all departments were discussed. A luncheon followed this meeting.

On Friday morning state board members repeated their reports and county auxiliary presidents made their annual reports. The "Woman's Auxiliary News" will include all of these reports in this and future issues. Registration was under 70, but twice that number attended the luncheon.

Mrs. J. A. Downing, assisted by Mrs. S. S. Westly and Mrs. W. S. Reiley, paid beautiful tribute to deceased members.

Music by the Roosevelt High School double quartet preceded the luncheon. Greetings were given by M. C. Hennessy, M.D., of Council Bluffs, President-Elect of the Iowa State Medical Society. Dr. Hennessy stressed the fact that the Woman's Auxiliary should be more than a "glorified subscription agent for *Hygeia*." He believes that more than ever the doctors need the help of the Auxiliary since "the rainy day for the medical profession is here now."

In the absence of Mrs. Eben J. Carey, National Auxiliary President who was scheduled to be the luncheon speaker, Alfred W. Adson, M.D., Chief of Staff in Neurosurgery at the Mayo Clinic, made a forceful address on Medical Economics. The general thought of his talk was: In considering federal control of medicine it is wise to define the need, effectiveness, and character of such a measure. The work of the doctors provides the basis of civilization when one considers public health measures for which they are responsible.

Medical service is the only service rendered, whether payment is guaranteed or not. The government is "you". Do you need compulsory insurance that would remove initiative and efficiency? The Supreme Court handed down the decision some months ago which classified the medical profession

as a business league. If it is such, let us protect its principles by spreading the gospel of scientific medicine. Men trained and experienced in the practice of medicine should certainly be more capable of solving their own problems than are politicians. A new council of the American Medical Association, with offices in Washington, has been formed to look after the angles of medicine which involve politics. Doctors and their wives can mould public opinion by speech and actions. "Therapeutics is an essential everyday commodity."

An excellent Walt Disney movie, "The Anopheles Mosquito," (malaria carrier) was presented through the courtesy of the State Health Department. Many fine films are available and members are urged to write the State Department for information concerning their use.

The following amendments to the by-laws were passed:

1. That an Archives Committee composed of a chairman, the historian, and the retiring president, be appointed each year to assure the preservation of worthwhile records.

2. That the historian be made a member of the standing committees. Article VI, section 2: Board of Directors:

The management and control of this organization shall be vested in a Board of Directors which shall consist of the officers, the chairmen of standing committees, the immediately retiring president for a term of three years and two directors who shall be elected at the annual meeting to serve for a term of one and two years, respectively, and hereafter for a term of two years each. The presidents of the Woman's Auxiliaries of the county medical societies shall be ex-officio members of the Board of Directors of the Woman's Auxiliary to the Iowa State Medical Society.

Seven former state presidents of the Auxiliary were present: Mrs. M. N. Voldeng, Mrs. W. A. Seidler, Mrs. J. A. Downing, Mrs. M. C. Hennessy, Mrs. E. T. Warren, Mrs. W. R. Hornaday, and Mrs. F. W. Mulsow.

Officers were elected and were duly installed by Mrs. M. N. Voldeng, first state president of the Iowa Auxiliary. We are not repeating the list of officers since their names appeared in the May issue of "Woman's Auxiliary News."

Mrs. K. M. Chapler, Chairman  
Press and Publicity Committee.

## MEMORIAL SERVICE

April 21, 1944

It is with mingled feeling of sadness and of joy that I arise on this occasion. It is certainly fitting and proper that this convention should set aside a brief moment in order that we, the living, may pay a just and loving tribute to those of our members who have gone on.

We are indeed keeping in close touch with that realm to which we all shall go, and I am reminded of a custom of the peoples of the Adriatic Sea, who at the close of day sing a beautiful melody. As their wives and sweethearts sing on the shore of the sea, the sound of the melody drifts out over the water and is answered by the fishermen themselves in their boats. Although separated in the physical sense, there is still communion between these people. And today we are encouraged by the voices and memory of great souls who have passed beyond the realm of things we say and do here.

We would not be true to our faith if our altars are not kept burning by the memory of these members who have met the supreme test. They are not dead, because death cannot kill that which never dies. Character survives, goodness lives, and influence is immortal.

A doctor's wife, if she deserves the name, is one whose life is consecrated to service. Loving thoughts and deeds are the warp and woof of her existence; such souls forever live. They are not dead. Therefore, we should be glad; glad that we have known these doctors' wives whose lives have been an inspiration and whose memories are a benediction.

This memorial would be of no account if it did not serve to strengthen us for the better discharge of the duties which devolve upon us in the ordinary affairs of life; if it did not make us who remain better auxiliary members; if it did not teach us to carry forward the noble plan and purpose of those who have gone before. We must have faith and know that as

"Leaf after leaf drops off, flower after flower,  
Some in the chill, some in the warmer hour,  
Alive they flourish and alive they fall.  
Earth who nourished them receives them all,  
And that we, her wiser children, should not be  
less content,  
To sink into her lap when life is spent."

As we read the names, our president will place a carnation in the vase in memory of:

Mrs. Prince E. Sawyer, Woodbury County Auxiliary  
Mrs. Elliott C. Cobb, Woodbury County Auxiliary  
Mrs. Cleanthus E. Birney, Upper Des Moines Auxiliary  
Mrs. Elam E. Lashbrook, Upper Des Moines Auxiliary  
Mrs. Edward L. Bower, Dallas-Guthrie Auxiliary  
Mrs. Walter L. Bierring, Polk County Auxiliary.

MRS. JAY C. DECKER ACCEPTS OFFICE  
OF PRESIDENT

I thank you for the confidence you have expressed in me. May I prove worthy of this honor. The very fine efforts of my predecessors have set the standards of the Auxiliary. To live up to these standards I need the help of every officer and member.

With the threatening cloud of socialized medicine, it behooves us as wives of physicians to assist them in every way possible in their stand against regimentation. I am sure with the help of the National Auxiliary and the guidance of the Iowa State Medical Society we shall continue to grow and serve the purpose for which we were organized.

Through constant study of our aims and problems, through cooperation, and through unselfish consideration of our work in relation to others, we can achieve success. To these purposes I pledge my loyalty, my devotion to the Woman's Auxiliary and to the American Medical Association. I will support its action, protect its reputation, and ever sustain its high ideals.

ANNUAL REPORT OF THE STATE PRESIDENT  
1943 - 1944

First, I wish to take this opportunity to express my gratitude to the officers and members of this wonderful organization for the support all have given me this year as president. I take no credit for anything of importance this year; the officers and members did all of the work through their loyal support and cooperation, and I want to assure all of you that your untiring efforts shall go down in my memory book.

I have presided at three board meetings; attended two national board meetings; and am looking forward to the pleasure of going in June to my third, which will be held in Chicago June 11 to 15 at the Knickerbocker Hotel. I hope many will attend.

I sent numerous items to the Medical and Surgical Relief Committee at 420 Lexington Ave., New York City. I placed posters of the United States Cadet Nurse Corps and the Doctors at War radio broadcasts in many public institutions where they would catch the public eye.

I distributed the "Woman's Auxiliary News" to many non-members with an invitation to join the Auxiliary. Their reasons for not joining in these times are obvious. Families and friends are divided.

I had four hundred copies made of the editorial "Tomorrow's America," which has to do with socialized medicine, and distributed them to every member in Iowa.

I made five talks on the Wagner-Murray-Dingell Bill and requested each county president to write her congressman to vote against its adoption.

I visited Auxiliaries in six counties and found them all doing fine work suitable to the needs of their locality.

Now that I have closed the book as your president



of the Woman's Auxiliary to the Iowa State Medical Society, I realize that each of you has proved her friendship through loyalty and cooperation in Auxiliary work. I shall never forget the many pleasant contacts and opportunities which accompany the honor and privilege of being state president.

I should like to thank Miss McCord for her untiring efforts, as well as all of those who made this an interesting year. May the Auxiliary continue to live and prosper.

Mrs. W. S. Reiley, President

## REPORT OF RESOLUTIONS COMMITTEE

The following resolution of appreciation was made a part of the permanent record of the organization at the business meeting Friday afternoon.

WHEREAS, the Woman's Auxiliary to the Iowa State Medical Society in convention assembled has been the recipient of great courtesy,

BE IT RESOLVED, that the Woman's Auxiliary express its appreciation to those who have offered their hospitality:

To Mrs. Hornaday and her committee for general arrangements;

To Mesdames Royal, Chase, Apley, and Irving for the dinner bridge on Thursday evening;

To the local doctors' wives who are Home Nursing Instructors and who served as hostesses at the tea in the Home Nursing headquarters;

To Mrs. J. A. Downing for the impressive memorial service;

To Mrs. E. R. Posner and her committee for taking charge of registration;

To the Polk County Auxiliary membership for all courtesies;

To the Kirkwood Hotel for courtesies extended to the Auxiliary members;

To Reverend August Samuelson, Chaplain, for his sincere greetings and best wishes;

To the Roosevelt High School choral group for their lovely music and to their director, Miss Laura Duncan;

To Dr. M. C. Hennessey, President of the Iowa State Medical Society, for his greetings;

To Dr. A. W. Adson of the Mayo Clinic for his inspiring message;

To the State Department of Health for the fine moving picture;

To the Speakers Bureau of the Iowa State Medical Society for its assistance and to the Board of Trustees for its financial support;

To Mrs. Hornaday for the beautiful flowers;

To the press for its courtesies;

To our efficient secretary, Mrs. Felter;

To our beloved president, Mrs. Reiley, who served so loyally and conscientiously during this difficult year;

And to all those whose thoughtfulness has made this convention a success.

Mrs. J. A. Pringle  
Mrs. R. E. Parry  
Mrs. K. M. Chapler

## SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays—2:05 p. m.

WSUI—Thursdays—9:00 a. m.

June 7- 8 Asthma

Edward H. Files, M.D.

June 14-15 Typhoid Fever

Raphael J. Hennes, M.D.

June 21-22 Athlete's Foot

W. Norman Doss, M.D.

June 28-29 Nutrition and Health

Mrs. Louise A. Scott

## MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

(Continued from page 251)

### Meeting of the Medical Economics Committee April 20, 1944

The Medical Economics Committee of the Iowa State Medical Society met at four o'clock April 20, 1944, with the following members present: Drs. Charles T. Maxwell of Sioux City, Howard D. Fallows of Mason City, and Martin I. Olsen of Des Moines. Dr. Maxwell reported on work done during the past year, and the discussion next centered on resolutions from Dubuque, Polk, and Johnson counties. After studying these, the Committee drew up the following recommendations:

1. The Medical Economics Committee recommends that the House of Delegates approve in principle a program for prepayment plans for medical care on a nonprofit basis.

2. It recommends that the Legislative Committee prepare and work for such legislation as may be necessary.

3. It recommends that the President appoint a committee to prepare and submit to the Executive Council plans for putting such a program into effect.

Dr. Maxwell also presented the matter of the Loyalty Group insurance plan, and it was decided the committee could give the agent a letter stating that in the opinion of the committee the company is financially sound and should be able to carry out any contract it makes, and the contract itself is favorable at the premium rate at which it is offered.

Meeting adjourned at six-thirty p. m.

## SOCIETY PROCEEDINGS

### Black Hawk County

The Black Hawk County Medical Society held its regular monthly meeting at Black's Tea Room in Waterloo Tuesday, May 16, at 6:30 p. m. The guest speaker of the evening was Lieutenant Thomas L. Trunnell, M.C., United States Naval Reserve, former Waterloo physician now stationed at the Naval Training School in Ames. Lt. Trunnell spoke on his service in the Navy and told of his experiences while on overseas duty.

S. A. Barrett, M.D., Secretary

### Clayton County

The annual meeting of the Clayton County Medical Society was held in Elkader Monday evening, April 10. Officers elected to serve the Society during the year include Dr. James C. Brown of Littleport, president; Dr. Charles W. Keith of Strawberry Point, vice president, and Dr. Placido R. V. Hommel of Elkader, secretary and treasurer.

### Decatur County

The Decatur County Medical Society met in Leon at Painter's Tea Room Thursday, May 25, at 7:00 p. m. The scientific program featured an interesting Clinicopathologic Conference presented by Julius S. Weingart, M.D., pathologist at Iowa Lutheran Hospital in Des Moines. Several physicians from that vicinity were guests of the Society for the meeting.

### Humboldt County

Members of the Humboldt County Medical Society and their wives were the guests of Dr. and Mrs. Lee R. Turner of Renwick Tuesday evening, May 9. The doctors conducted their business meeting in Dr. Turner's office and Mrs. Turner entertained the ladies at bridge at her home where the doctors joined them later for lunch.

### Johnson County

The May meeting of the Johnson County Medical Society was held in Iowa City at Hotel Jefferson on Wednesday, May 3. Dinner was served at 6:00 p. m., following which the usual business meeting was held. The scientific program consisted of an extremely interesting and practical symposium on office procedures and the private practice of medicine. The introduction was made by George C. Albright, M.D. This was followed by a talk on "Making the Start" by Andrew W. Bennett, M.D. The Professional Aspects: The Utilization of Medical Records

was discussed by Dr. Albright and The Business Side of the Office was presented by George H. Scanlon, M.D.

R. H. Flocks, M.D., Secretary

### Page County

The Page County Medical Society met in Clarinda at the Municipal Hospital Thursday, May 4, at 6:30 p. m. The scientific program featured an address on Skin Diseases by O. James Cameron, M.D., Assistant Professor of Dermatology and Syphilology at the University of Nebraska College of Medicine in Omaha.

### Polk County

The regular scientific meeting of the Polk County Medical Society was held in Des Moines at the Des Moines Club, Wednesday, May 17, at 6:15 p. m. The guest speaker of the evening was Lieutenant Colonel Donald J. Wilson, M.C., Chief of the Dermatological Service at Schick General Hospital in Clinton, who spoke on Common Skin Diseases and What You Can Do About Them.

### Pottawattamie County

A clinic for members of the Pottawattamie County Medical Society was conducted Saturday, May 20, by William E. Leighton, M.D., Professor of Surgery at St. Louis University School of Medicine, and George A. Carroll, M.D., Head of the Department of Malignant Surgery at DePaul University in St. Louis. The morning program opened at 9:30 a. m. at Jennie Edmundson Memorial Hospital and was followed by a noon luncheon at Hotel Chieftain. At the luncheon Dr. Leighton presented a paper on Breast Cancer, illustrated with slides and movies.

### Scott County

The Scott County Medical Society held its regular monthly meeting in Davenport, Tuesday, May 2, at the Lend-A-Hand Club. Dinner was served at 6:00 p. m., following which Dr. Genevieve Stearns, research professor in the Department of Pediatrics at the State University of Iowa College of Medicine, spoke on Recent Discoveries in Mineral Metabolism.

L. J. Miltner, M.D., Secretary

### Woodbury County

The May meeting of the Woodbury County Medical Society was held in Sioux City Thursday, May 25, at the Martin Hotel at 6:30 p. m. The guest speaker of the evening was J. Dewey Bisgard, M.D., As-



sistant Professor of Surgery at the University of Nebraska College of Medicine, who spoke on The Ulcer-Cancer Problem of the Stomach.

Frank D. McCarthy, M.D., Secretary

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### PERSONAL MENTION

Dr. Isaac L. Gould, who has practiced in Kellogg for the past several years, has moved to Pasco, Washington, where he has been appointed to the staff of the DuPont Company Hospital.

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Dr. Alonzo L. Jenks, Jr., of Des Moines addressed the Iowa Federation of Business and Professional Women's Clubs at its convention at Hotel Fort Des Moines in Des Moines, Saturday morning, May 20. Dr. Jenks discussed the Wagner-Murray Bill.

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Dr. Elmer E. Morton, formerly a retired physician of Des Moines, has moved to Manning and established an office for the general practice of medicine. Dr. Morton went to Manning to assist during the shortage of physicians.

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Lieutenant Colonel William J. Carrington, M.C., Chief of the Surgical Service at Schick General Hospital in Clinton, addressed the Des Moines Chamber of Commerce at its meeting Friday noon, May 12, at Hotel Fort Des Moines. The subject of Colonel Carrington's address was The Wounded Shall Not Die.

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Dr. Alexander Bushmer has located in Orange City in the office of the late Dr. John G. de Bey. Dr. Bushmer was graduated from George Washington University School of Medicine in Washington, D. C., and served his internship at Creighton Memorial St. Joseph's Hospital in Omaha.

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Dr. Bruce Ensley of Shell Rock was the guest speaker at the monthly meeting of the Greene Woman's Club Tuesday evening, April 18. Dr. Ensley spoke on Changes to Be Made in the Care of the Sick and also discussed the Wagner-Murray Bill.

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Dr. Edward W. Anderson of Des Moines, spoke before the Tri-F Club of that city at its dinner meeting Wednesday, May 3, at the Y. W. C. A. at 6:00 p. m. Dr. Anderson discussed the Wagner-Murray Bill.

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Dr. Leslie W. Swanson of Mason City spoke before the Lions Club of that city at its meeting Wednesday noon, May 10, in the Legion Hall. Dr. Swanson spoke on Heart Disease.

Dr. Alexander C. McKean of Ladora has moved to Mount Pleasant where he has been appointed a resident at Mount Pleasant State Hospital, effective June 1. Dr. McKean has practiced in Ladora for the past several years.

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Dr. Thomas F. Thornton of Waterloo spoke before the Lions Club of that city at its luncheon meeting Monday noon, April 24. Dr. Thornton presented an informative talk on Socialized Medicine.

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Dr. Herman J. Kooiker, who has practiced in Milford during the past three years, has moved to Loveland, Ohio, where he is associated with Dr. Frank H. Lever.

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Dr. Charlotte Fisk of Des Moines spoke before the Polk County Health Council at its regular monthly meeting Tuesday noon, April 25, at Bishop's Cafeteria. Dr. Fisk discussed Medical Aspects of Pre-school Health.

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Dr. Max L. Durfee of Cedar Falls spoke on The Prevention of Tuberculosis at an open meeting held at Lincoln School in that city Wednesday evening, April 26. The meeting was sponsored by study groups of the kindergarten, first, second, and third grades, but was open to all parents and the general public.

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### MARRIAGE

Mrs. Grace Foreman Lowe of Grand Rapids, Michigan, and Dr. Ralph L. Whitley of Osage were united in marriage Saturday afternoon, April 22, at the home of the bride's cousin, Elizabeth Foreman, in Osage. The couple will reside in Osage where Dr. Whitley has been engaged in the practice of medicine for many years.

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### DEATH NOTICES

Purcell, Bert E., of Iowa Falls, aged seventy-one, died suddenly May 15 of a heart attack. He was graduated in 1898 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Hardin County and Iowa State Medical Societies.

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Winkler, Frank Paul, of Sibley, aged sixty-one, died May 10 of cardiac decompensation. He was graduated in 1906 from the University of Illinois College of Medicine, and at the time of his death was a member of the Osceola County and Iowa State Medical Societies. A more complete obituary will be found in the History of Medicine Section of this issue of the JOURNAL.

# HISTORY OF MEDICINE IN IOWA

*Edited by the Historical Committee*

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary*

DR. JOHN T. MCCLINTOCK, Iowa City

DR. MURDOCH BANNISTER, Ottumwa

DR. FRANK E. SAMPSON, Creston

## Frank Paul Winkler, M.D., 1882—1944

### In Memoriam

Frank Paul Winkler was born in Ida Grove, Iowa, June 24, 1882, the son of William and Carolyn Winkler. In early childhood the family moved to Doon, Iowa.

He received his education at Charles City College, the University of South Dakota, and his degree in medicine from the University of Illinois College of Medicine in 1906. He served his internship at the Westside Hospital, Chicago, Illinois.

He first practiced his profession in Scotland and Bryant, South Dakota, remaining there until 1912. At this time he moved to Sibley, Iowa, and three years later established the Osceola Hospital which he operated until February, 1944. Dr. Frank Reinsch of Ashton, Iowa, became associated with Dr. Winkler in 1920, following which they carried on their hospital work together. On February 1, 1944, because of Dr. Winkler's physical condition, Dr. Reinsch assumed full responsibility, and with the business and professional aid of Dr. Frank Rizzo will continue operation of the Osceola Hospital.

On January 1, 1916, he was married to Mayne Marie Benjamin, who survives him. They have two daughters, Helen Frances Severa and Florence Carolyn, both of Sibley.

Members of the State Society will miss Dr. Winkler because of his life interest in anything pertaining to organized medicine. He served as president of the Iowa State Medical Society during 1942-1943, and in the years prior to that he spent many hours when he should have been at rest, traveling and attending meetings for the benefit of organized medicine in the state of Iowa.

Dr. Winkler was confined to his bed from February 3, 1944, until the date of his death May 10, 1944, because of cardiac decompensation.

While it is hard for his colleagues to realize that he departed this life at the age of sixty-one years, following a faithful professional service, they can take comfort in the fact that those years were packed with a professional effort which would be covered by most of us in a much longer life. He

was an inspiration to all who came in contact with him, and stood for those principles based on an ethical medical practice. He was skilled in his profession and was ever willing to impart knowledge to his colleagues. He will long be remembered by the members of the societies to which he belonged.

Matthew T. Morton, M.D.

#### AN APPRECIATION

*Prepared and read by Reverend Paul P. Jackson, Minister of First Congregational Church, Manson, Iowa, a friend and former pastor of Dr. Winkler who lived in the community from August 1, 1928, to October 1, 1939.*



FRANK P. WINKLER, M.D.

It has been said that Ernest Hemingway found the title for his book "For Whom the Bell Tolls" in the writing of a not too well known English poet of the Early Seventeenth Century. It arose from the custom of tolling the bell at the time of the passing of a beloved citizen. As people came inquiring the reason for the tolling of the bell, the Minister replied, "No man is an island, entire in itself, every man is a piece of the continent, part of the main; if a clod be washed away by the sea, Europe is the less . . . any man's death diminishes me, because I am involved in mankind; and therefore never send to know from whom the bell tolls; it



tolls for thee." In the passing of our dear friend and beloved physician, the bell is tolling today for Sibley, and every individual who was privileged to appreciate the friendship of and to work with our brother, Frank Winkler. His call to inherit the promised land came last Wednesday just as it began to dawn.

His energy was like the sun at noontime, his spirit was like the morning increasing with the fullness of the day. The white spray flying, the sails full with the wind, a keen mind, an industrious will, and a devout and reverent spirit, always eager of danger and opportunity. He cherished his home, he loved his own well and wisely, and he loved them to the end. Constant ministry was reflected there in unwonted grace and thoughtful care. . . .

Into his vocation and profession he not only brought the greatest background of training, but he had abundant and exceptional skill as a surgeon and his efforts were crowned with above the average success. When a physician lays down his life, it is not like the passing of an ordinary citizen. He holds a peculiar relation to the community. He is a public agent and a public friend. He is a family friend. He has a part in most of the family relationships, and the opportunity to be of service in many ways. I cannot recite to you the hundreds of instances that old and young, scantily clad and well to do, the workman and the employer, the student, and the man of business upon whom his services were bestowed. On the lips of many we hear the words, "He was our doctor," "He saved my life," "He brought my child through," and when the resources of his fine and gentle spirit were not sufficient, his heart was bleeding because he was unable to give back the precious life.

He insisted that the benefits of religion should be given his patients. In his work he relied on the mercy and grace of God to assist in healing. When he could see that the battle was lost, he would come to whatever minister was interested in the case and say, in his wonderful way, "I think it would be well for you to call right now, they need you." Like all doctors, his life belonged to his clientele; and he gave too much of his strength, too many times. But he was happy that way, and anything less would not have been life for him.

His community and civic service is so well known to all of you that I shall pass it briefly. He combined realism, idealism, and unbounded energy. He was always a booster for every good

community cause; and many, many community achievements for which Sibley is noted found him sharing and happy. Whenever things were dragging just a bit, as they do in every locality, he would arise to the occasion, and either with a well-timed talk—and he had that ability—or by giving of his time and money he would bolster the attack at its weakest point and see that things got under way properly. He was a master at administrative detail whenever it was necessary, and his fine personality and pleasing manner met many situations that lesser spirits might have failed to solve.

Now a word about his relation to the church. You see, that is where I knew him best. In all my experiences I never have found a man who was so busy, and at the same time so loyal in attendance at the stated services of his church. Many times he would perform major surgery at 7:30 a. m. on Sunday morning in order to be here for his adult bible class. He loved to worship God, and he felt the need of worship. He gave generously to the local church and its program, and all benevolences, charities, and missionary causes received assistance from this "good steward of our Lord and Saviour, Jesus Christ." . . .

The altar fires of his church will always burn brighter because he has worshipped here. I know you are all saying . . . "The church has suffered a terrible loss, who will take his place?" Somehow, I cannot bring myself to raise that question to the extent that it shall become a care or worry. As we view his life in days to come, the joy and inspiration that the memory of his life brings will lead others to dedicate to the causes he loved and served. Today "The bell tolls for thee," each one of us; and we will answer, "Here am I, send me." This is the appreciation I would leave as his Christian Spirit peacefully has taken its flight through the shades of mortality into the light of life immortal.

## SAVE MEDICAL JOURNALS

Dr. Jeannette Dean-Throckmorton, Librarian of the Iowa State Medical Library, located in the Historical Building in Des Moines, is most anxious to receive old copies of medical journals. They should be sent direct to her.

# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**TRAUMATIC INJURIES OF FACIAL BONES**—By John B. Erich, D.D.S., M.D., consultant in laryngology, oral and plastic surgery at the Mayo Clinic, assistant professor of plastic surgery, The Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota; and Louie T. Austin, D.D.S., head of section on dental surgery, The Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota. In collaboration with Bureau of Medicine and Surgery, U. S. Navy. W. B. Saunders Company, Philadelphia, 1944. Price, \$6.00.

**THE 1943 YEAR BOOK OF GENERAL SURGERY**—Edited by Everts A. Graham, M.D., professor of surgery, Washington University School of Medicine; surgeon-in-chief of the Barnes Hospital and of the Children's Hospital, St. Louis. The Year Book Publishers, Inc., Chicago, 1943. Price, \$3.00.

**THE ARTHROPATHIES**—A Handbook of Roentgen Diagnosis—By Alfred A. de Lorimier, M.D., Colonel, Medical Corps, United States Army, Commandant, The Army School of Roentgenology, Memphis, Tennessee. Formerly director, Department of Roentgenology, Army Medical School, Washington, D. C. The Year Book Publishers, Inc., Chicago, 1943. Price, \$5.50.

**THE 1943 YEAR BOOK OF GENERAL MEDICINE**—Edited by George F. Dick, M.D.; J. Burns Amberson, Jr., M.D.; George R. Minot, M.D.; William B. Castle, M.D.; William D. Stroud, M.D., George B. Eusterman, M.D. The Year Book Publishers, Chicago, 1943. Price, \$3.00.

**HEALTH AND HYGIENE**—A Comprehensive Study of Disease Prevention and Health Promotion—By Lloyd Ackerman, Western Reserve University. The Jaques Cattell Press, Lancaster, Pennsylvania, 1943. Price, \$5.00.

**APPLIED DIETETICS**, The Planning and Teaching of Normal and Therapeutic Diets—By Frances Stern, chief of Frances Stern Food Clinic, The Boston Dispensary; assistant in medicine, Tufts College Medical School; special instructor in dietetics in social service, Simmons College, The School of Social Work; associate in nutrition, Simmons College School of Home Economics. Second edition. The Williams & Wilkins Company, Baltimore, 1943. Price, \$4.00.

**A TEXTBOOK OF PATHOLOGY**—Edited by E. T. Bell, M.D., professor of pathology in the University of Minnesota, Minneapolis, Minnesota. Fifth edition, enlarged and thoroughly revised. Lea and Febiger, Philadelphia, 1944. Price, \$9.50.

## BOOK REVIEWS

### THE 1943 YEAR BOOK OF GENERAL THERAPEUTICS

Edited by Oscar W. Bethea, M.D., professor of clinical medicine, Tulane University School of Medicine (retired); senior in medicine, Southern Baptist Hospital; consulting physician, Charity Hospital; member of the Revision Committee of the U. S. Pharmacopeia 1930-1940. The Year Book Publishers, Inc., Chicago, 1944. Price, \$3.00.

This is a book which every doctor, whether he is a general practitioner or a specialist, should have on his desk. The "Treatment Quiz" alone is worth the price.

The latest information on penicillin is given in brief enough form that it can be absorbed in a few minutes' reading time. Advances, new treatments, and complications of the sulfa drugs are all outlined. New methods and technics, treatment of burns, lessons learned in the armed services, and helpful hints too numerous to mention are all briefed. In fact, with so few specific treatments in our armamentarium, it behooves us all to keep this little book handy and refer to it often for better therapeutics. There is not a field in medicine that is not touched upon in this 1943 year book.

No doctor can afford to be without this intensified and concise little volume. C. A. N.

### A TEXTBOOK OF MEDICINE

Edited by Russell L. Cecil, M.D., professor of clinical medicine, Cornell University Medical College; attending physician, New York Hospital; visiting physician, Bellevue Hospital, New York City. Asso-

ciate Editor for Diseases of the Nervous System, Foster Kennedy, M.D., professor of clinical neurology, Cornell University Medical College; attending physician, New York Hospital; visiting physician in charge, neurological service, Bellevue Hospital; consulting physician, New York Neurological Institute. Sixth edition, revised and entirely reset. W. B. Saunders Company, Philadelphia, 1943. Price, \$9.50.

This revision of a well-known textbook is especially welcome in the present period of pressure in medical practice, and its values as a reference volume as well as its readability have been increased by many outstanding features.

Clinical information presented is well chosen, concisely written, and complete both in the many sections which have been entirely revised and in the generous addition of new and timely subjects. Correlation of numerous sections is improved by brief introductory discussions, occasionally enlivened by touches of humor such as that in the discussion preceding the section on ductless glands. Subject after subject is impressively presented, and the discussion of the circulatory system is but one outstanding example in its treatment. Additional illustrations increase the value of the text, and the page listing normals for the common laboratory tests is also a valuable and handy addition.

Readability of this volume has been improved by a more smoothly flowing style, and by its arrangement of the text in two columns. Size of the book has been kept at a minimum, partially through the use of a type which is somewhat small for comfortable reading.

It would be difficult to name a more satisfactory



text in medicine for students, while frequent reference to this volume by the practitioner will assure him of following the principles of best medical practice.

R. E. S.

### MINOR SURGERY

By Frederick Christopher, M.D., associate professor of surgery at Northwestern University Medical School, Chicago; chief surgeon at the Evanston (Ill.) Hospital. Fifth edition, reset. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

This new and revised edition of a previously very popular book has been excellently prepared. It incorporates recent advances as well as standardized methods of treatment, which can in most instances be taken care of by the general practitioner.

The discussion on modern treatment of open wounds is excellent and should be studied by every physician who undertakes to care for small or large wounds. Many of the ideas and concepts could well be incorporated in the information given in First Aid and Red Cross instruction courses. The use of tetanus toxoid is evaluated.

The volume stresses up-to-date, practical application, and it is well illustrated to substantiate this phase.

There is only one significant fault which this reader can find. In the author's attempt to avoid surgical provincialism, he has quoted the literature almost too freely. In some of the analysis of the surgical literature he quotes statistics which are many years old and obviously do not conform with present-day opinions.

The book should be of great value to the medical student, general practitioner, or the surgical specialist.

E. H. B.

### CLINICS

Volume II, Number 5—Symposium on War Medicine

Edited by George M. Piersol, M.D., professor of medicine, Graduate School of Medicine, and professor of clinical medicine, School of Medicine, University of Pennsylvania. Published bi-monthly. J. B. Lippincott Company, Philadelphia, 1944. Price, per year, \$12.00 by subscription, single copy, \$2.00; cloth-bound, \$16.00 by subscription, single copy, \$3.00.

This journal has gained wide reputation for the quality of its articles. Perusal of the February issue further exemplifies this statement.

The symposium on war medicine is invaluable to the thousands of physicians now in military service. This teaching panel is led by Brigadier General Fred W. Rankin and participated in by Major General W. H. Ogilvie, Captain C. M. Shaar, U.S.N., et al. Many important considerations resulting in the excellent results obtained were discussed. The administration of large amounts of plasma immediate-

ly and during the first forty-eight hours has saved many lives in cases of bad burns. Adequate surgical wound revision reduces to a minimum putrid wound infections.

The first portion of the panel on chemotherapy deals with pharmacology and toxicology, the second with application and results. Much authoritative information evolves from the discussion. Gramacidin and penicillin receive their due consideration.

R. H. Ivy leads the panel on plastic and reconstructive surgery with Captain H. L. D. Kirkham, U.S.N.R., Lt. Colonel James Barrett Brown, et al., participating. The reasons "all general rules do not apply to facial and plastic surgery" receive brilliant discussion.

Other subjects included in this treatise are fractures, venereal disease, fatigue, and gastro-intestinal disorders.

The volume contains new material in so many varied fields that all physicians will find it highly interesting and instructive.

J. B. P.

### ATLAS OF SURGICAL OPERATIONS

By Elliott C. Cutler, M.D., Moseley professor of surgery, Harvard University, and chief surgeon of the Peter Bent Brigham Hospital, formerly professor of surgery, Western Reserve University, and director of surgery of the Lakeside Hospital; and Robert Zollinger, M.D., assistant professor of surgery, Harvard University, and senior associate in surgery at the Peter Bent Brigham Hospital. The Macmillan Company, New York, 1939. Price, \$9.00.

The preface of this interesting manual contains the statement that "this book had its inception in a desire to \* \* \* bring forward to the unfledged surgeon in a single, small volume the simpler and standardized procedures of modern surgical practice." That the book has lived up to this preface is amply proved by its widespread usage among interns, residents, and surgical assistants. It comfortably bridges the hiatus between the modern surgical textbook and the multiple volume systems of surgery which are of value only to the serious student of surgery.

This atlas contains most of the common surgical procedures which are standardized and about whose technical performance there exists no essential difference of opinion. It contains the intimate details of surgical technic in a pictorial step-by-step form together with pertinent statements regarding operative indications, preoperative preparation, anesthesia, surgical anatomy, and postoperative care. The manner in which these operative procedures is presented serves admirably as a scaffold on which one may hang such individual technical variations as may seem to suit his own operating abilities and the individual case at hand. It is a book which can be recommended to anyone in that large group which lies between the medical school student and the occasional operator.

T. D. T.

# The JOURNAL

of the

## Iowa State Medical Society

VOL. XXXIV

DES MOINES, IOWA, JULY, 1944

No. 7

### A POSTWAR INDUSTRIAL MEDICAL PROGRAM\*

CLARENCE D. SELBY, M.D., Detroit, Michigan

It is the responsibility of the physician in industry to protect the health of the industrial workers. In time of peace this is economically sound; in time of war it is an important means of conserving man power; and at all times it is humane and in line with medicine's high principles. It is therefore an exceedingly important responsibility.

How the physician in industry meets this responsibility you already know. I shall not repeat. Suffice it to say, his immediate objectives are: To prevent occupational diseases; to maintain healthful working conditions and environments; to control disabilities resulting from occupational injuries and to rehabilitate those who have become handicapped; and to secure early diagnoses of communicable and other controllable, nonoccupational sicknesses in the employees.

These objectives entail the use of: Medical and sanitary supervision of working conditions and environments, toilets, washrooms, locker rooms and in-plant feeding facilities; preplacement and periodic health examinations; health consultations and instruction, personal as well as general; treatment of occupational injuries and diseases and rehabilitation measures for the impaired; temporary care of minor ailments and medical emergencies; a good record system; and cooperative relationships with the local medical profession and the official health agencies.

This program is essentially one of sickness and disability control, and the results throughout the war thus far have been more effective and safer employment for the people who have impairments which limit their fitness for work on war jobs, as well as for those who are whole and healthy and can do any kind of work on any shift.

Measured by the magnitude of the war production, it can be said that industry has been success-

ful in the employment of the limited service groups. And the risk to them through occupational injuries and diseases appears to have been no greater than it is among others. On the contrary, it might even have been less as suggested by the fact that the accident severity rates of the largest producer of war products, over a third of whose employees have impairments which limit their fitness for work, have dropped to new all-time lows each year of the war. Last year the rate was less than one-half day per 1,000 hours of work. It can be said, therefore, that the responsibilities engendered by the war have been well met by the physician in industrial practice, particularly in his contributions to the maintenance of effective man power. These wartime responsibilities need not be discussed further. We may well concern ourselves more appropriately with a consideration of the problems which must be met henceforward to the end of the war, during the change back to civilian production, and after.

*Preplacement Examinations:* Chiefly because of man power shortages and the necessity of employing handicapped people to maintain man power, the trend toward selective placement has been greatly accelerated.

Handicapped people are defined as those who have impairments of a physical nature or changes in personality which limit their fitness for work and, consequently, cannot be approved unqualifiedly for employment. They are termed "limited service employees" and they are hired when productive jobs suited to their capacities are available and can be performed without risk to them and to others. The process of evaluating impairments, finding suitable jobs, assigning the handicapped employees to them, and training them for effective safe performance is known as selective placement.

The key to selective placement is in the preplacement examinations. Appreciating their importance, the physician in industrial practice has improved his examination procedures and made them sufficiently complete to serve the purposes

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of selective placement on a large scale. To do this he has had to rearrange his examination quarters for smooth but rapid flow of examinations. He has had to add special equipment for aid in the prompt diagnoses of visual impairments and certain diseases which restrict employability. Furthermore, he has needed to devise simple methods of recognizing unusual personality traits insofar as they relate to safety and efficiency in job performance.

For the purposes of this paper it is not necessary to discuss the various steps of the selective placement procedure because not all of them are medical. It is sufficient to say that the decision as to placement is based largely on preplacement examinations and the ultimate success of the procedure in many cases rests on the medical supervision which follows placement.

The important point to make at this time is this: Because of its value in the maintenance of health and in view of the permanency of employment under seniority rights, selective placement is becoming the hiring method of choice and it seems likely to modify considerably or even supersede prewar conventional methods. Therefore, the preplacement examinations are assuming a position of consequential importance, and this is becoming increasingly evident as disabled veterans return seeking reemployment.

*Recmployment of Veterans:* As a matter of fact the veterans have already come back to the plants in considerable numbers and, although the proportion of them who are severely handicapped is yet small, many have, nevertheless, acquired personality changes, mostly of a temporary nature, which have created employment problems.

As you probably know, the Selective Training and Service Act of 1940 requires private employers, under certain conditions, to reemploy veterans who have previously worked for them and employers generally wish to do so. But they are now learning that it is not merely a matter of just rehiring, and relatively few of them know what to do. Consequently, the physician in industrial practice who appreciates this opportunity, and does something about it, is placing himself in an excellent position for the balance of the war and the uncertain months which inevitably will follow.

In order fully to safeguard the handicapped employees, they are selectively placed and then the plant physician observes their progress periodically until they have become accustomed to their work. Once they are seasoned and it is evident that the work is free of unfavorable influences, the doctor may then regard them as normal employees and give them the conventional periodic

examinations accorded all employees for the maintenance of their health.

Of course, limited service employees may not be transferred to jobs which vary essentially from those of original assignment, or discharged, without medical approval. In following through with the handicapped employees, in fact in all relations with them, it is well to bear in mind that they are probably worried about their security and until they are assured by success on the job they may have a diversity of personality reactions. Even so, it can be assumed that most of them are just normal people and they should be treated as such, avoiding undue sympathy, unsought advice, and too much waiting upon.

Just a final word about the rehabilitation of veterans; it has an immensely popular appeal, more or less of a political value, and many agencies and organizations are competing for the privilege. The result is much confusion and I fear certain fundamentals are momentarily being lost from sight. Hence, a word of caution: Regardless of what the official agencies or the voluntary organizations can do for disabled veterans, and assuming that physical and personality restorations are made as complete as are possible to obtain, the final results of rehabilitation rest with the veterans themselves and their use of the opportunities which their employers are able to make available to them. Obviously, however, the disabled veterans should be given the most favorable opportunities obtainable by their employers and that is the purpose of selective placement, of which the preplacement examinations and medical follow-ups are exceedingly important steps. Selective placement is a means of in-plant rehabilitation. It is the climax, the final test, of the entire rehabilitation program; it is a function which will continue after reconversion; and it gives the physician in industrial practice one of the great opportunities of his career.

*The Change Back:* In the reconversion of industry I do not look for any important changes in the status of the physician in industrial practice. The demands for his service will be different, yes, but his opportunities will continue to broaden in accordance with his ability to take on new responsibilities.

The man power problem will be lessened, perhaps ended for a time, with the termination of war contracts. At any rate, there will be a period during the change back to civilian production when employment can be expected to be at relatively low levels. Because of accumulated seniority rights and the considerations required or expected of employers, veterans will be given preference in employment over temporary war workers, who

are largely the women and handicapped persons now employed in substantial numbers. No doubt many of these war workers will go back to their homes. Others will resume civilian occupations considered to be inessential during the war. Others will become unemployed.

Experiences under similar conditions have proved that claims for compensation are likely to increase, and that no doubt will be a feature of the change back. If it is, the physician in industrial practice will find ample opportunities for his talents in the task of examining claimants, checking back on their physical and medical records, and otherwise in preparing himself for the expression of impartial opinions on questionable cases.

Incidentally, I sense a growing interest in examinations at termination of employment. I do not anticipate the general adoption of such examinations as a feature of the change back, nor do I advocate this unless the purpose is for rehabilitating employees who have suffered occupational impairments which have inadvertently been overlooked. In my opinion, well performed industrial health maintenance programs obviate the necessity of terminal examinations.

*Postwar Industrial Hygiene Control:* After the war and when the reconversion is accomplished, a considerable industrial expansion can be expected. Out of it will come new industrial hygiene problems or variations in the old ones which will require extensions of in-plant industrial hygiene activities.

During the war this field has been extended mostly through the official agencies, and in securing personnel to meet their needs they have exhausted the supply of trained industrial hygienists and made new ones. As excellent as their service has been, and it has been an outstanding contribution to the war effort, it is nevertheless a service which industries of substantial size should have available on their premises.

The trend in this field after the readjustment period is over, when trained industrial hygienists will probably be available, will likely be in that direction, and medical departments in plants of, say, 5,000 and up, will be expected to have their own industrial hygiene laboratories. Through these laboratories I can foresee greater progress along plant housekeeping lines, such as in the maintenance of sanitary conditions in the locker rooms, washrooms, toilets, rest rooms and cafeterias, as well as in the control of occupational disease exposures.

The responsibility of the physician in industry is extending inevitably in this direction and to meet it he must have appropriate laboratory facilities with trained industrial hygiene personnel and

bacteriologists. After all, is not the physician in industrial practice the health officer of the plant in which he serves?

*Nutrition:* In-plant feeding of industrial workers has been given an energetic impetus by the war, and just how much of a responsibility the physician in industrial practice will acquire as a result of this I do not know. Certainly the medical profession has become more conscious of the effects of nutrition on health and is becoming more capable in the treatment of deficiencies resulting from undernourishment.

I suspect that when industry settles back to civilian production and rationing is a thing of the past, the plant cafeterias will continue to be operated very much as they were before, although perhaps with better medical and sanitary supervision; and plant physicians will diagnose and refer deficiency cases to doctors in private practice in much the same fashion as they deal with all cases of nonoccupational sickness.

*Control of Communicable Diseases:* Important health problems of the physician in industrial practice will continue to be, perhaps increasingly so up to the end of the war and after, in the control of tuberculosis and other communicable diseases. Parenthetically, there may be some problems as yet unproved in the tropical diseases which can be brought back by veterans from service in infected areas, such as malaria. If such problems do arise, they will have to be handled as they appear since there does not yet seem to be any clear plan to anticipate them.

It is assumed in many circles that tuberculosis, syphilis, and such will be increased by the war; as far as I know, there is no substantial evidence as yet to support that opinion. Even so, industry will continue to be the most important case finding agency available to the adult population for the early discovery of these communicable diseases. And the physician in industrial practice who is functioning along preventive lines will be in a much better position than the one who has no facilities for this type of service.

*Mental Hygiene:* Prior to the war industry was studying mental hygiene programs with some skepticism, but doctors of industry have long believed that something could be done in this field and many of them, either consciously or not, were using psychosomatic methods in their consultations with the employees, but no definite pattern had become generally accepted.

Military experiences in this field have brought added attention to the great importance of sound personality attitudes, methods of detecting variances from the sound, and means of correcting them. I am sure that these war experiences will



influence postwar industrial medicine considerably. The physician in industrial practice must therefore be thinking along these lines with a view to developing a practical program in industrial mental hygiene.

*Education:* While the practice of industrial health is not a specialty in the customarily accepted sense, it is a field which definitely does require special knowledge and preparation. Furthermore, there is a growing demand for the services of those who are specially prepared, and consequently there is also an ever increasing need for courses of training in both the under- and post-graduate areas of medical education. At present this need is being met by courses such as this. After the war we can expect a rather rapid expansion in undergraduate facilities for teaching, and with expansions of this character we can look for recognition as specialists, but not until then can we expect that well deserved and greatly desired mark of distinction.

*Physical Therapy:* Industrial physicians have long been aware of the value of physical therapy and therapeutic exercises in the treatment of major injuries and have used them concurrently with conventional treatments, but that has not been a general practice. As the result of progress in this field during the war I can foresee postwar developments of this nature, perhaps in the form of special hospitals, or wings in general hospitals, for the simultaneous treatment and rehabilitation of traumatic cases.

*Medical Care Plans:* My final suggestion is that the physician in industrial practice watch the progress of medical care plans. He is very positively concerned; and although he does not now treat nonoccupational conditions, he may be required to do so, because industry is the focal point of all plans.

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### THE MILITARY MANAGEMENT OF ALLERGIC DISEASES\*

COLONEL SANFORD W. FRENCH, M.C., U.S.A.

MAJOR LAWRENCE J. HALPIN, M.C., A.U.S.

Atlanta, Georgia

In contrast to the feelings and attitude during the First World War, the present Medical Corps is recognizing the importance and military significance of the allergic diseases. This importance is twofold: Of primary consideration is the resultant loss of valuable time in training and subsequent combat. Second, there is the failure of a great number of would-be inductees to meet Army physical qualifications because of the severity or

the type of their allergic symptoms. It is impossible at this time to include any figures which may give an indication of the incidence of allergic diseases in the Army. Material for such computation has shown that the military incidence will parallel those figures determined for the civilian population. It is the purpose of this paper to bring to attention the manner in which the Fourth Service Command is adequately managing the diagnosis and therapy of the allergic soldier.

Mobilization regulations<sup>1</sup> regarding the allergic diseases have remained unchanged over a period of the past two years. In general, over this same space of time, induction qualifications have been lowered in most other respects. In spite of the fact that asthma or severe seasonal hay fever continues to disqualify a candidate for military service, the incidence with which such cases are seen in the clinic has shown a definite increase. This statement is not made in a critical manner, but rather as an understanding of the difficulties facing the medical officers of an induction board. Clear emphasis can be directed to this point when we remember that hay fever is a seasonal affair. In the same light most asthma is periodic and subject to variations in climate, environment, personal association and contact, and emotional influences. Examination of a candidate for entrance to military ranks during a non-pollen season or during an interval between asthmatic attacks, calls for a great degree of decision, diplomacy, and judgment to determine the fitness of that candidate and the compatibility which may or may not exist between military service and his potential degree of allergic disability.

Menninger<sup>2</sup> has aptly described the lack of trained man power, the immense importance of speedy action, and the most effective disposition of patients as being the fundamental common denominators to the practice of all specialties in the Army. In the Fourth Service Command the subject of trained allergists has been one of primary consideration. In the past two years, since the establishment of this allergy section, four short courses of instruction in the management of allergic diseases have been presented. The enthusiastic response and attendance to these three- and five-day conferences have been indicative of the individual recognition that allergy plays an important rôle in each station and general hospital.

The preparation of standardized allergenic extracts has been completed at the Fourth Service Command Laboratory. The availability of a "central" laboratory and the use of the same extracts in each clinic are assurance that all of these clinics are functioning as a large unit rather than as isolated sections of the individual hospital.

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At the present time eighty-nine allergy clinics have been established. Of the officers in charge of these clinics, only twenty have had previous experience and training in this specialty. Their success and that of the other sixty-nine whom we have "exposed" to allergy has been due not only to their own interest and adaptability, but also to the encouragement and leadership extended by their commanding officers through the guidance of the Service Command Surgeon.

In most hospitals the allergy service consists of the operation of an outpatient clinic and the maintenance and supervision of an allergy ward for hospitalized cases. In the smaller camps and posts the hospital admission rate for allergic patients is not sufficient to warrant the designation of an individual ward for these patients. In these instances the allergy outpatient clinic cares for patients at intervals of two to three times weekly. Thus, it can be emphasized that in any fixed medical installation correct care and accurate diagnosis can be offered to an allergic patient with an expenditure of only two to four hours weekly by the attending medical officer. By receiving prompt diagnosis and thorough, specific therapy the allergic soldier is able to remain on a full-duty status. This is of extreme importance because of the fact that relief from symptoms can be gained by the soldier with an absolute minimum of time lost from his training and duties. In a previous report<sup>3</sup> it was noted that of a total of 3,917 patients reported by 21 clinics then in activation, 2,818 of them were maintained on a duty status with no time lost because of hospitalization on allergic grounds.

There has been established a close degree of liaison between the allergist and the induction board. The decision as to the rejection or acceptance of an allergic candidate is influenced by the opinion of the allergist, after the latter officer has recorded a complete history and evaluated the results of other necessary diagnostic procedures. This cooperation speaks for greater accuracy and efficiency, ultimately resulting in a more capable and better physically fit fighting soldier.

In those hospitals of sufficient size to warrant such a procedure an allergy ward (or wards) has been established. This allergy section is an integral and important part of the medical service. Better care, interested attention by an officer aware of the nature of the complaints, and more rapid disposition are thus extended to the hospitalized allergic patient. By far the greatest single allergic cause for hospitalization has been bronchial asthma. This is further emphasized when it is learned that of 1,153 patients on the allergy wards over a period of six months, 820 of them had bronchial asthma of sufficient severity to prevent

continuation on their present duty. This should not imply, however, that all 820 patients were discharged from the Army on a certificate of disability discharge. During the above period, only 184 asthmatic patients were so discharged, indicating that 636 asthmatic individuals were returned to duty as a result of allergy investigation and therapy.

Bronchial asthma was revealed to be one of the leading causes for certificate of disability discharge at a large southern camp.<sup>4</sup> Further importance can be gained from the following paragraph quoted from that study:

"The only disabling atopic disorder occurring in this service was severe bronchial asthma, which constituted 3.8 per cent of the total. The condition had existed prior to induction in all cases and all had allegedly informed the induction boards of their malady. Over one-half of these patients had other symptoms or signs of an atopic disturbance, and in 27 per cent the asthma was so severe that the patient was discharged from the Army within thirty days of induction. \* \* \* It was found that they did better when worked up in the clinic than when admitted to the hospital, and that when hospitalization was necessary it should be as short as possible, as they are highly suggestible. If ill enough from asthma to remain in the hospital for more than a few days they usually had to be discharged from the Army."

The average allergic patient in a general hospital differs somewhat from those admitted to a station hospital. As a rule, the severity of symptoms and the degree of enforced disability are more marked at the former installations. Those patients in whom the demand for a prolonged etiologic search is necessary are usually transferred from the station hospital. Infectious processes as contributing factors in the etiology are also seen more frequently in the general hospitals. An interesting observation has been made in reviewing the allergy services in the general hospitals in this command. At one of these installations 86 per cent of the hospitalized allergic patients have been admitted following evacuation from a theater of operations because of the severity and persistency of their complaints in those areas. The words—"in those areas"—are important. The greatest majority of these evacuated patients gave no pre-induction history of allergic disease.<sup>5</sup> They noted the onset of their complaints in the area of the world in which they were stationed; and similarly noted complete clearance and continued freedom from allergic distress during the return sea voyage and to the present time. Many patients in these groups have had a persistence of their allergic symptoms subsequent to their hospitalization in



America. Patients such as these are not only interesting and exceedingly difficult diagnostic problems, they are also problems from the military viewpoint. Correct disposition is of prime significance, not only for present military standards but also for the future dependency claims and benefits which will arise. Therefore, it is important that an accurate diagnosis be made and that correct therapy be instituted. Whether to discharge from the Army, to retain in service, or to arrange for extended care and treatment are problems which must be considered even after a correct clinical diagnosis has been established. As stated previously regarding the rejection or admission of an allergic applicant at the induction center, medical and military judgment and decision are factors of consideration at this disposition point.

It should not be expected that therapeutic results in the military management of allergic diseases would equal those obtained in civilian practice. There are many reasons for this viewpoint. The environmental control available to the civilian specialist is not available under military conditions. A soldier with pollen hay fever or asthma cannot be expected to limit his activities nor to avoid definite overexposure. During training maneuvers and bivouacs, his camp site may be in the midst of an abundant growth of ragweed. It is extremely difficult for a duty soldier to follow an elimination or restricted diet in the average Army mess. Preparation of feather free or dust free sleeping quarters is an impossibility in a barracks housing thirty to forty men. In spite of these difficulties, an implication can surely be gained that beneficial results are obtained in the proper military management of the allergic diseases. Of those cases appearing before disposition boards over a period of six months, almost twice as many allergic patients were retained in the service under treatment and without disabling symptoms as were discharged from the Army. Only seven patients with seasonal hay fever were separated from the service during a six months' summer period. At the same time 1,269 patients with what was considered "severe hay fever" were under specific preseasonal and coseasonal pollen therapy in the clinics. Allergic causes other than hay fever and asthma were responsible for only four discharges during these months. The expected incidence of severe urticaria, atopic dermatitis, and migraine is surely suggestive that the relief obtained by proper therapeutic management has been a definite factor in the retention of many eligible soldiers in uniform.

The impression has been evident during the two years since this allergy service was established of the many advantages of using extracts prepared

and standardized in one laboratory. The expense of the undertaking has been insignificant in comparison to the benefits and relief which have been extended to the allergic soldier. The importance of allergic diseases in the present Army has been recognized. The Allergy Section of the Surgeon's Office, Fourth Service Command, has been established as a definite indication of the benefits to be derived from the military management of these symptoms.

#### REFERENCES

1. Standards of Physical Examination During Mobilization. War Department, pp. 1-9 (January 22) 1943.
2. Menninger, W. C.: Psychiatric problems in the Army. *Jour. Am. Med. Assn.*, cxxiii:751-754 (November 20) 1943.
3. French, S. W., and Halpin, L. J.: Army allergy; report on allergy clinics in Fourth Service Command. *Ann. Allergy*, i:1-16 (July-August) 1943.
4. Kinsey, R. E.: Study of 1,000 cases separated from the Army on certificate of disability for discharge. *Bull. U. S. Army Med. Dept.* (No. 69), pp. 64-75 (October) 1943.
5. Leopold, Howard C.: Personal communication.

### THE HARD OF HEARING AND HEARING AIDS\*

CHARLES C. WALKER, M.D., Des Moines

I selected this subject because it has never been presented to this section before, yet it is timely and of sufficient importance for us to give it consideration. Another reason for my selection of this subject is that the perfection of the midget vacuum tube has revolutionized the hearing aid industry. The acoustical engineers have done a good job of producing a hearing aid far superior to anything heretofore produced.

Many articles and discussions of this subject have appeared in the literature within the last few years, not only by leading otologists but also by acoustical engineers and hard of hearing individuals.

The hard of hearing comprises that very large group of persons who had good hearing and acquired normal speech but subsequently lost their hearing and yet retained a functioning cochlea. It is estimated that there are approximately 7,000,000 hard of hearing individuals in the United States. This is exclusive of those totally deaf. One is considered hard of hearing if he has difficulty in hearing ordinary conversation, and he can usually be benefited with a hearing aid.

We as otologists are not altogether responsible for the loss of hearing in these cases, but we are responsible to give these patients the best hearing which modern science has made possible. This responsibility should no longer be deferred to the hearing aid salesman who has no knowledge of the type or degree of deafness of the patient unless that information is supplied by us.

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Otologists should take sufficient interest in this subject that eventually they will control the sale of hearing aids much like the ophthalmologist controls the sale of glasses. It has been said that the hearing aid industry is a racket as it is conducted at present. To place it on a higher ethical level requires cooperation among the manufacturer, the salesman, and the otologist.

It has been said that we have not measured up to our responsibility. Dr. Fowler, Jr., recently said, "Few otologists know enough about the fitting of a hearing aid and many do not know the hearing tests which are necessary for a proper fitting." This is a serious charge, but far too sweeping in its condemnation; yet I believe there is much room for improvement of our knowledge of this subject.

The hard of hearing patients are difficult to handle, and more difficult to satisfy, because many variable factors are involved; namely, the otologic examination, including audiometry, the mechanical hearing aid, and the unhappy patient.

The fact remains that however difficult these cases, there is only one therapy for them after all others, with but a few exceptions, have failed, and that is a properly fitted hearing aid.

If the fitting of a hearing aid consisted merely of amplifying sound, it would all be very simple indeed, but unfortunately there is much more to it than that. The otologist must know something about audiometry, the mechanics of a hearing aid, and above all the type and degree of deafness of the patient.

There are four principal steps in making such a diagnosis: (1) The history of the patient's hearing or deafness; (2) examination of the ears; (3) audiometry and tuning fork tests, and (4) the speech test.

The history of the patient's deafness is important. One should ascertain at what age the hearing began to fail, if there has been any otitis media, and if there is any hereditary tendency toward deafness in the family tree. One should also ascertain the presence or absence of tinnitus, whether the patient can hear better in a quiet or noisy room, and how well the patient can hear over the telephone. These are all important points to record in the history.

Examination of the ears should also include examination of the nose, the sinuses, the throat, and the teeth, because a foci of infection about the head may not only be the cause of catarrhal or purulent otitis media but also may be the cause of degenerative changes in the cochlea or acoustic nerve. Inspection of the drums for perforations, infection, or growths should be made. Any irregularities of the external canals should be noted to facilitate the making of an individually moulded

ear piece. A well fitted ear piece may mean the difference between a successfully fitted hearing aid and a failure.

Audiometry and tuning fork tests are the most important part of the otologic examination from both a diagnostic and a therapeutic standpoint. It is essential to know whether the patient has a conduction, perception, or a mixed type of deafness.

The Council on Physical Therapy of the American Medical Association has accepted two audiometers which meet the requirements. The newer ones have desirable accessories; namely, a light signal, a switch to interrupt the current, a bone transmitter, a loud speaker, and a masking device. Audiometers, as you know, produce a pure tone hum at various frequencies, standardized by the Council of the American Medical Association from 128 to 8192 cycles per second. This range amply covers the spoken voice.

To make a hearing test with the audiometer is a simple procedure, nevertheless the examiner should be familiar enough with the technic that much of his time can be given to seeing that the patient is giving his undivided attention to the test. The interrupting switch enables the examiner to determine if the listener's attention fluctuates or is constant.

The threshold of hearing is the faintest sound which the patient can hear; this varies depending on whether the threshold is determined from an inaudible to an audible sound, or whether the test is made from an audible to an inaudible sound. The latter gives the better threshold reading. The threshold determines the acuity of hearing, as well as the loss of hearing in decibels and is so recorded on the audiogram in all frequencies.

It is well to begin the test at 1024 cycles, because most everyone can hear this frequency easier than any other. Both air and bone conduction should be recorded on the same audiogram. From this record one must determine the type of deafness of the patient and the kind of hearing aid which will be best suited for that particular case.

Audiometry has largely supplanted the tuning forks in making the functional hearing test. This has given rise to considerable discussion and disagreement among otologists who were trained to make hearing tests with tuning forks and those who use the audiometer. All the older textbooks and many otologists contend that in conduction deafness there is a greater loss for the low tones than for the high tones. The audiometric school contends this is not correct.

Audiometers and hearing aids are both calibrated in decibels and the audiogram therefore gives the hearing aid salesman the needed and best information for him to assemble the proper com-



bination of microphone, receiver, and battery power to fit the patient's needs.

The audiogram will also help him to adjust the hearing aid so that the proper frequencies will be amplified or dampened as the case demands. The otologist should indicate whether an air or bone conduction receiver is required. The otologist can further assist the hearing aid salesman in supervising the making of an individual moulded ear piece. Serious accidents have occurred because of the lack of this supervision.

After the otologist has obtained all possible information, he is not justified to write a prescription for a hearing aid as the ophthalmologist does for glasses, but he can be of material assistance to the salesman with information which only an otologist can give. The final fitting of a hearing aid must still be done by trial and error.

The speech or voice test is more practical than accurate. The patient is interested only in how well he can hear the spoken voice, and no audiogram can give that information. The only way to test the efficiency of a hearing aid is with the spoken voice.

The intelligibility test is made in a quiet room with the patient wearing the hearing aid and keeping his back to the examiner. The test consists of a series of selected words, some in which the vowel sounds predominate and some in which the consonants predominate, spoken in an ordinary conversational voice. If the patient can hear most of the words correctly, the hearing aid is well fitted and will prove successful; if half or more of the words are missed, a different hearing aid should be tried until a satisfactory one is found, since no two are alike. With the loud speaker attachment the various frequencies can also be tested through the hearing aid to determine if certain frequencies need more or less amplification. This can also be determined by making another audiogram through the hearing aid.

#### CONCLUSION

We have all seen the transformation of the motion picture from silent to sound, which has brought pleasure to the hearing millions. Likewise the science of electronics has through the midget vacuum tube hearing aid restored many hard of hearing individuals to the world of sound so that they too can enjoy that which we enjoy through the sense of hearing.

We as otologists should therefore be interested in these unfortunate cases; they come within our sphere. If we do not give these individuals the scientific advice which they desire, they will continue to go to the hearing aid salesman who may not always be influenced by ethical motives.

## THE FINLEY HOSPITAL CLINICOPATHOLOGIC CONFERENCES

### MIXED TUMOR OF THE PAROTID GLAND

ALFRED B. NESLER, M.D., Dubuque

Every tumor of the parotid gland presents a definite problem from the standpoint of diagnosis, treatment and prognosis. In the past at least, surgeons have often congratulated themselves upon the successful removal of a mixed cell tumor weeks or months after operation, only to have the patient return with a recurrence after a longer period of time. Also, the pathologist, having declared a given tumor definitely malignant, is chagrined to find that the patient lives on in spite of the supposed cancer. Because mixed tumors of the parotid gland do behave unexpectedly a review of the modern concepts of them seems indicated.

#### CASE REPORT

*Chief Complaint:* The patient, a white man fifty-three years of age, was admitted to Finley Hospital December 4, 1935, because of a "painless swelling of the left side of his face."

*Family History:* The patient's father died at fifty-six years of age of an unknown cause. His mother died at sixty-three of "heart disease." Two sisters and one brother are alive and well. Five siblings died in childhood.

*Past History:* The patient had had measles and mumps in childhood and bilateral herniotomy several years prior to his present illness. Otherwise he had been well and the detailed history by systems was negative.

*Present Illness:* Two years previously the patient had noticed a swelling on the left side of his face and this had gradually increased in size. It had been painless and had not caused interference with chewing or hearing.

*Physical Examination:* Aside from the local condition and the lack of his teeth, the general examination was negative. Locally, there was a swelling of the left parotid region the size of a hen egg. It was nonfluctuant, firm, and rubbery in consistency; it was movable, painless, and not attached to the skin. The mucous membrane of the buccal cavity presented nothing to indicate a relationship to the tumor. The cervical lymph nodes were not enlarged.

*Clinical Diagnosis:* Mixed tumor of the left parotid gland.

*Operative Notes:* Under local anesthesia an incision was made over the mass and a multilobular

cyst was encountered. This was encapsulated. It was delivered through the incision and excised without breaking the capsule, and the wound was closed after obliterating the dead space.

*Pathologic Diagnosis:* Grossly, the specimen was an encapsulated round mass 7 centimeters in diameter. On section it was composed of moderately firm cellular tissue with soft mucoid material and fibrous tissue scattered through it. Microscopically, the sections showed a definite capsule of connective tissue. The bulk of the tumor was composed of dense fibrous tissue but in some areas the appearance was that of myxomatous tissue. In others there were solid masses of epithelial cells usually well differentiated but showing an occasional mitotic figure believed to indicate malignant change.

*Anatomic Diagnosis:* Mixed cell tumor of the left parotid gland with early carcinomatous change.

*Subsequent Course:* The patient was discharged the same day and the wound healed by first intention. There was no evidence of recurrence for seven years when the patient died unexpectedly of a heart attack. The final clinical diagnosis was a benign mixed tumor of the left parotid gland.

*Comment:* The foregoing case report is fairly characteristic of most cases of mixed tumor of the parotid gland; that is, a middle-aged person with the gradual growth of a painless swelling of one parotid gland. While in this case there was no evidence of recurrence in a period of seven years, it is well known that there is a marked tendency for these tumors to recur and at times to become locally malignant. Less frequently they metastasize to distant parts of the body.

#### GENERAL DISCUSSION

*Incidence:* Mixed tumors of the salivary glands are not uncommon as indicated by reports in the literature. McFarland<sup>1,2</sup> was able to collect 90 cases in 1926 and 300 in 1936. Martin<sup>3</sup> reported 70 cases in 65,351 patients admitted to the Barnard Free Skin and Cancer Hospital, St. Louis, in a twenty-four year period; Stein and Geschickter<sup>4</sup> found 241 cases recorded in the surgical pathologic laboratory of Johns Hopkins Hospital between 1888 and 1931. This represented a group of 50,000 patients surgically treated, a ratio of 1 tumor to 208 patients. In their review of the literature they found reports of 435 cases in addition to their series, making a total of 676 cases. On an average, we have encountered one case each year for the past ten years; that is one mixed tumor annually per 703 surgical patients.

*Sex and Age:* Mixed cell parotid tumors may occur at any age, but the majority are encountered

in patients between twenty and forty-five years of age. In the 676 reported cases noted by Stein and Geschickter 67 per cent were in this age group. They also report that the incidence is greater in the white race than in the negro race (80.1 per cent to 19.9 per cent). It is generally believed that each sex is equally affected. However, Martin found that nearly three-fourths of his series occurred in females. The tumors are encountered with equal frequency on each side of the face.

*Etiology:* The origin of both the epithelial and connective tissue components of these tumors have caused much discussion for many years. Their status in 1928 was summarized by Ewing<sup>5</sup> as follows:

1. The endothelial origin has been disproved.
2. No single source of mixed tumors meets all requirements. Some are distinctly adenomatous and probably arise from the acini and ducts of the gland in which they are well incorporated. Others are encapsulated or extraglandular and take the form of basal cell or adenocystic epithelioma. These probably arise from misplaced and occasionally embryonal portions of gland tissue. Branchial remnants may possibly be connected with this group.
3. The derivation of mucous tissue and cartilage from gland epithelium has been satisfactorily proved and there is no necessity of including in the originating tissue any cartilaginous structures.

McFarland, however, was of the opinion that these tumors were best explained by the theory of enclavement or embryonal sequestration. The tumors have no relationship to the normal structure in which it occurs but from which they do not arise.

Stein and Geschickter, in a good review of how the theories of the nature of these neoplasms have varied since they were first described by Kaltschmied in 1752, believe that the explanation is indicated by the embryology of the glands. In the early stages the salivary glands appear as outpouchings of the buccal epithelium. It is the outlying cords or strands of this glandular epithelium invading the connective tissue of the capsule that is responsible for the beginning of the neoplastic process. They point out that unlike the submaxillary glands in which mixed tumors are comparatively rare, the parotid gland lacks a specialized fibrous capsule. Instead, the epithelial cells diffusely invade the surrounding mesenchymal elements in the region of Meckel's cartilage. From the first the parenchyma of the gland is thus closely associated with the precartilaginous structures of the mandible. The outlying acini of the gland tend to invade surrounding structures and



are seen even in normal anatomic specimens. Thus in tumors the outlying glandular elements are most active and by invading the surrounding connective tissue stimulate the precartilaginous substance to react and to proliferate, resulting in a composite tumor of both epithelial and connective tissue origin. They also are of the opinion that the majority of malignant tumors of the parotid gland are of the basal cell type. The microscopic picture may be that of an adenocarcinoma with cells of the columnar or basal forms. These tumors frequently recur and extend locally but rarely metastasize. It is usually the atypical carcinoma which gives use to widespread metastases. However, rare reports have appeared in which mixed cell tumors have metastasized to distant organs.

*Symptoms:* The usual clinical history indicates a tumor of long standing which gradually increased in size. Stein and Geschickter believe that the symptoms are considerably shorter in malignant tumors as compared to the benign ones. They state that in their series the average duration of benign mixed tumors from the time first noticed to the time of operation was eight years, while for malignant tumors it was four years. In benign mixed tumors there is local discomfort, while in the malignant type pain may be noted and frequently radiates to the upper half of the face or to the scalp. Interference with chewing or hearing and salivation are also occasional symptoms. In malignant tumors the cervical lymph nodes may be involved.

*Differential Diagnosis:* Swellings of the parotid gland due to neoplasms must be differentiated from those caused by infections, salivary calculus, secondary tumors, or other tumors in the vicinity. Usually the general history and a careful examination of the nose, sinuses, and mouth will make this possible. Thus, in epidemic parotitis pain and fever are associated with the swelling and there is a history of an epidemic in the vicinity. Infectious parotitis occurs after surgical operations and is thought to be due to dehydration. The lymphoid structure about the parotid gland which may be enlarged in syphilis, tuberculosis, Hodgkin's disease, or in some form of lymphoblastoma can usually be differentiated because the swelling is rapid and the cervical and other lymph nodes are also involved. The main diagnostic problem concerns whether a given neoplasm is benign or malignant. This is not always possible by clinical examination but should at least be attempted before operation. The benign tumors are of firm, elastic consistency, are sharply circumscribed, and the skin is movable over the tumor. The malignant tumors are more diffuse, may be harder, softer, or of the same consistency as the normal gland, and are often the

site of discomfort or pain. The cervical lymph nodes on the affected side are enlarged in about one-third of the cases of malignant tumors. The age of the patient and the duration of the tumor may also indicate its nature. Seventy-five per cent of the benign tumors occur in patients between twenty and forty-five years of age, whereas two-thirds of the malignant tumors occur after forty-five years. As pointed out previously, the duration of the benign tumor is twice that of the malignant group. Two other rare tumors of the parotid gland will also have to be considered in the diagnosis. The oncocytoma<sup>8</sup> occurs in patients over sixty years of age and the microscopic picture is distinctive. The adenolymphoma<sup>9, 10, 11</sup> is a very rare tumor which may occur at any age, is slow growing and painless, and usually is easily removed. Its histologic picture is distinctive.

*Treatment:* Stein and Geschickter have summarized the different methods of treatment as follows: "In the past curettage with chemical cauterization of the base of the growth was used but as it resulted in frequent recurrences it was abandoned. Another method which proved unsatisfactory was removal by blunt dissection because as a result of breaking through the capsule, tumor cells were left behind and resulted in recurrence. Today the method of choice is that of complete excision by sharp dissection. When done early enough and the tumor is not too large the tumor with a zone of healthy tissue outside the capsule can be effectively removed without damage to the seventh nerve. Even in larger growths it is effective although there is a greater possibility of facial paralysis. The most radical method is the use of the cautery to excise the tumor completely and widely. This leaves much scarring and almost invariably a facial paralysis. It is the preferred method in recurrent tumors in which there already is facial paralysis. While irradiation of mixed tumors may be beneficial in occasional cases, as a rule it has not been highly successful because of the resistance of the tumor cells and because the position of the gland does not lend itself to cross-irradiation. Implants of radium will also injure the facial nerve. However, in carcinoma of the gland irradiation is of distinct advantage. If after irradiation the tumor is reduced in size and considered operable, it should be excised."

*Prognosis:* McFarland, in his report on 297 mixed tumors of the parotid, submaxillary and sublingual glands, stated that there were 69 (23.23 per cent) recurrences and 13 of them proved fatal. These figures are in essential agreement with the findings of others. While some advocate waiting until the tumors become fairly large, the consensus is that the earlier they are removed the

more likely they are to be removed completely without spilling cells into the wound, and thus some of the recurrences are prevented.

## REFERENCES

1. McFarland, Joseph: Ninety tumors of parotid region, in all of which postoperative treatment was traced. *Amer. Jour. Med. Sc.*, clxxiv:362-376, 1927.
2. McFarland, Joseph: Three hundred mixed tumors of the salivary glands, of which sixty-nine recurred. *Surg., Gynec. & Obst.*, lxiii:457-468, (October) 1936.
3. Martin, Thomas M.: Treatment of tumors of parotid gland; survey of results obtained at Barnard Free Skin and Cancer Hospital. *Arch. Surg.*, xxxvi:136-143 (January) 1938.
4. Stein, Irvin, and Geschickter, Charles F.: Tumors of parotid gland. *Arch. Surg.*, xxviii:492-526 (March) 1934.
5. Ewing, J.: *Neoplastic Diseases*, third edition. W. B. Saunders Company, Philadelphia, 1928.
6. Livingston, S. K.: Teratoma (mixed tumor) of right parotid gland with metastasis to sternum and second rib left; case report. *Am. Jour. Roentgenol.*, xlv:887-888 (December) 1940.
7. Perrin, T. L.: Mixed tumor of parotid with metastases. *Arch. Path.*, xxxiii:930-934 (June) 1942.
8. Ackerman, L. V.: Oncoeytoma of parotid gland. *Arch. Path.*, xxxvi:508-511 (November) 1943.
9. Robinson, D. W., and Harless, M.: Papillary cystadenoma lymphomatosum of parotid gland. *Surg., Gynec. & Obst.*, lxxvi:445-452 (April) 1943.
10. Hall, Ernest M.: Adenolymphoma (orbital inclusion adenoma) of parotid gland. *Arch. Path.*, xix:756-757 (May) 1935.
11. Pamage, J. S., Binnie, G. G., and McCall, A. J.: Bilateral adenolymphoma of parotid gland. *Brit. Jour. Surg.*, xxx:189-192 (October) 1943.

## FIFTY YEAR CLUB

Last month the JOURNAL carried the names of ten physicians who were eligible to membership in the Fifty Year Club. In that article the request was made that additional names of eligible persons be sent to the central office, and we are happy to announce that the following are also being made members of the Club: William L. Thompson of Bayard, Fred C. Foley of Newell, Frederick E. Braucht of Elkader, Harry F. Thompson and Peder H. Vesterborg of Forest City, Peter A. Helgesen of Lake Mills, Gisle M. Lee of Thompson, and Herbert C. Woods of Tama. Much honor is due these men who have faithfully given of their services for fifty years.

## REFRESHER COURSE IN OTOLARYNGOLOGY

The University of Illinois College of Medicine announces that its fall didactic and clinical refresher course for specialists in otolaryngology will be held at the College from September 25 to 30, inclusive. The fee for the course is \$50.00. Since registration is limited to twenty-five, applications should be filed as early as possible. Write for information to Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

## CHANGE OF ADDRESS

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SPEAKERS  
BUREAU ACTIVITIESSTATE SOCIETY INVITED TO MEETING AT  
SCHICK GENERAL HOSPITAL

The Speakers Bureau is happy to invite the members of the Iowa State Medical Society to attend an all day meeting, Friday, August 11, at the Schick General Hospital in Clinton.

Lieutenant Colonel William J. Carrington, Chief of Surgery at the Hospital, has made arrangements for ward walks, clinics, and demonstrations of various medical and surgical cases. In addition there will be an opportunity to visit the reconditioning program and see demonstrations of physical and occupational therapy.

Highlighting the afternoon conference will be the presentation of four interesting cases by staff members of Schick General Hospital. Prominent physicians specializing in orthopedics, neurosurgery, neuropsychiatry, and general medicine will discuss these cases.

In the early evening Brigadier General Fred W. Rankin, Surgical Consultant of the Surgeon General and past president of the American Medical Association, will address the gathering. This will be followed by a discussion of Postwar Plans for Medical Service by Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*.

In addition to the scientific knowledge to be gained at a meeting of this type, the conference will provide an excellent opportunity for civilian physicians to visit an army hospital and observe the rehabilitation projects which are being conducted for our wounded veterans.

The August issue of the JOURNAL will carry a more detailed program of the session, but make your plans now to attend this worthwhile meeting.

## SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:05 p. m.

WSUI—Thursdays at 9:00 a. m.

July 5-6 Asthma—

Robert E. Jameson, M.D.

July 12-13 Early Danger Signals in Heart Disease—

Clarence E. Lynn, M.D.

July 19-20 Worry, the Great American Disease—

Marie N. Simonsen, M.D.

July 26-27 Infantile Paralysis—

Mark L. Floyd, M.D.



# STATE DEPARTMENT OF HEALTH

*Nathaniel L. Biering*

## BACILLARY DYSENTERY

### DEATHS FROM DIARRHEA AND ENTERITIS IN IOWA

The following table lists deaths from diarrhea and enteritis among children under two and persons over two years of age in Iowa, for the fourteen year period 1930 to 1943:

#### DEATHS FROM DIARRHEA AND ENTERITIS 1930-1943

Year	Deaths Under 2 Yrs.	Deaths Over 2 Yrs.
1930.....	191	159
1931.....	188	124
1932.....	111	85
1933.....	100	122
1934.....	187	127
1935.....	103	98
1936.....	137	113
1937.....	104	69
1938.....	92	94
1939.....	63	73
1940.....	59	55
1941.....	55	54
1942.....	62	46
1943.....	53	44
14 Year Total.....	1,505	1,263

Although recorded as "diarrhea and enteritis," it is probable that a high percentage of the deaths in the above table were caused by bacillary dysentery. The downward trend in mortality from this group of causes is indicated by the fact that deaths for the four-year period 1940 to 1943 totaled 428, compared with 1,080 for the same period (1930-1933) a decade ago.

The following paragraphs, based largely on a recent article by Hardy (formerly acting director, State Hygienic Laboratory) and Watt,<sup>1</sup> reflect the progress which has been made in recent years in diagnosis, treatment, and control of bacillary dysentery.

#### ETIOLOGY

Bacillary dysentery is usually caused by one or other of the following strains of *Shigella* or dysentery bacilli:<sup>2</sup> Shiga-Kruse bacillus, Schmitz bacillus, Flexner group, Sonne bacillus and *B. alkalescens*.

Hardy and Watt recommend use of the name "Shigellosis" (derived from the causative organ-

ism), in preference to diarrhea, enteritis, or "intestinal flu."

#### CLINICAL CONSIDERATIONS

In a series of 555 proved cases of shigellosis studied by Hardy and Watt, the most frequent clinical manifestation was a "simple diarrhea." Bloody mucoid stools were observed only infrequently and "scarcely entered into the clinical picture of Sonne, Schmitz or mild Flexner infections."

"In the young the illnesses are frequently grave, occasionally fulminating, whereas in older children and adults the disorders are usually mild. . . . In older children, adolescents and adults, very mild disorders and subclinical infections are much more common than significant clinical disease . . . The duration of the convalescent carrier state is commonly three to four times that of the total duration of symptoms. For control, due attention must be given to carriers, convalescent and passive, and to cases with disturbances of little clinical significance."

#### THERAPY

The authors recommend that treatment of patients with shigellosis begin with one of the sulfonamides (preferably sulfadiazine) which is readily absorbed.

"A satisfactory dosage for adults . . . is 1 gm. four times daily. Double the amount may be given as the initial dose. Children (between 25 and 75 lbs.) receive one-half the adult dosage; infants, 0.065 gm. of absorbed sulfonamide per lb. of body weight per day . . . amounts smaller than the above have been used and found effective in Flexner infections."

#### MANNER OF SPREAD

In the series of 555 cases of shigellosis or bacillary dysentery, Hardy and Watt found no evidence of water-borne infection. Milk was likewise remarkably free from suspicion due largely to the fact that the poor "who suffer most from

diarrheal diseases generally purchase the less expensive canned or dried milk. There was some evidence of spread through contaminated food but this appeared of minor rather than major importance."

Although flies were abundant, these investigators succeeded in isolating the organisms of bacillary dysentery from the insects "only once in repeated trials. In contrast, we recovered these pathogens with comparative ease from the fingers or under the finger nails of known cases and carriers . . . Within the household and in other groups living together, the organisms are most commonly passed from person to person through direct or indirect contact."

CONCLUSIONS

- "I. Well absorbed sulfonamides, as well as poorly absorbed preparations, are effective in shigella infections and are recommended.
- "II. Immediate specific treatment of initial cases and early carriers is advocated for the prevention of outbreaks."

Physicians who have occasion to observe cases of diarrhea and enteritis that may be due to shigellosis or bacillary dysentery are requested to notify the District Health Office or the State Department of Health.

REFERENCES

1. Hardy, Albert V., and Watt, James; Newer procedures in laboratory diagnosis and therapy in control of bacillary dysentery. Am. Jour. Pub. Health, xxxiv:503-509 (May) 1944.

2. Havens, Leon C.: The Bacteriology of Typhoid, Salmonella and Dysentery. The Commonwealth Fund, 1935.

DATA PERTAINING TO POOLED CONVALESCENT SERUM FOR SCARLET FEVER, MEASLES, AND WHOOPING COUGH

(As processed by and Distributed from the Serum-Plasma Center of the Iowa State Department of Health during the Seven Year Period 1937 to 1943)

CONVALESCENT SCARLET FEVER SERUM

Year	Clinics	Donors	Processed (cc.)	Distributed (cc.)
1937.....	21	354	37,047	27,965
1938.....	27	440	53,160	48,415
1939.....	24	411	45,120	40,170
1940.....	42	337	39,545	30,910
1941.....	46	228	25,485	28,610
1942.....	31	186	19,205	17,560
1943.....	31	221	27,805	25,145
Total.....	222	2,177	247,367	218,775

CONVALESCENT MEASLES SERUM

Year	Clinics	Donors	Processed (cc.)	Distributed (cc.)
1937.....	..	...	...	...
1938.....	17	179	21,620	7,055
1939.....	3	3	320	7,360
1940.....	10	135	14,745	11,555
1941.....	5	5	525	4,715
1942.....	16	115	11,205	11,360
1943.....	9	125	13,945	15,675
Total.....	60	562	62,360	57,720

CONVALESCENT PERTUSSIS SERUM

Year	Clinics	Donors	Processed (cc.)	Distributed (cc.)
1937.....	..	...	...	...
1938.....	..	...	...	...
1939.....	3	9	950	420
1940.....	13	69	6,925	2,090
1941.....	10	78	8,000	8,765
1942.....	14	69	8,215	8,510
1943.....	22	114	14,665	11,050
Total.....	62	339	38,755	30,835

PREVALENCE OF DISEASE

Disease	May '44	Apr. '44	May '43	Most Cases Reported From
Diphtheria .....	11	13	11	Woodbury
Scarlet Fever .....	684	846	200	For the State
Typhoid Fever .....	0	1	3	None
Smallpox .....	5	7	7	Carroll
Measles .....	911	815	978	For the State
Whooping Cough .....	27	42	190	Sac, Des Moines
Brucellosis .....	8	10	25	Delaware
Chickenpox .....	233	299	263	Dubuque, Des Moines, Black Hawk, Linn
German Measles .....	28	31	910	Des Moines
Influenza .....	3	50	3	Mitchell
Malaria .....	2	0	2	Clinton
Meningitis .....	18	14	10	Wapello
Mumps .....	363	304	369	Boone, Dubuque, Black Hawk, Washington
Pneumonia .....	27	48	46	Polk
Poliomyelitis .....	0	0	0	None
Tuberculosis .....	156	114	40	For the State
Gonorrhea .....	163	133	124	For the State
Syphilis .....	179	191	172	For the State



# The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

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## DOCTORS AND THE 5TH WAR LOAN DRIVE

The record being made by American physicians in military service is acknowledged on every hand as outstanding. No less laudatory are the accomplishments of those physicians whose war rôle has destined them to man the civilian front. Not only are the hours of this latter group long and arduous, but also they must work at tremendously increased pressure in order to try in some measure to keep abreast of the demands being made upon them by a greatly increased clientele. In spite of all this, however, many doctors find time to serve on nonmedical war activity committees of one sort or another. Their services are usually sought after because by education and professional standing they are outstanding citizens in their communities. People trust them and they see and meet large numbers of people. Even doctors who do not serve on nonprofessional committees have an opportunity to exert great influence in their communities. What we're leading up to is the 5th War Loan Drive, now in progress, and the part doctors have in it.

In making this 5th War Loan Drive a success—and a success it must be—every citizen, whatever his or her station in life may be, is obligated as a patriotic duty to cooperate to the fullest possible extent. For some this will mean merely buying bonds—as many bonds as possible and then a few more. For others it means buying bonds themselves, and then helping to convince others to buy bonds. Many physicians are in this latter group. Because they are statistically minded and seek facts, physicians are interested in knowing the exact answers when questions about bonds arise.

The headquarters of the State War Finance Committee in Des Moines has furnished us with the following pertinent information:

The purchase of bonds by the citizens of the nation in the amounts stipulated is the soundest possible way of financing the tremendous costs of the war. Furthermore, the ownership of bonds by the mass of the people will have a most important bearing upon postwar economy.

In the present 5th War Loan Drive the highest goal yet for sales to individuals has been set in an effort to siphon out of the active market our tremendous spending power pressing on toward disastrous inflation, and at the same time give to these individuals a cushion of savings for the postwar transition period. To persuade these millions of citizens voluntarily to lend enough money to their government means a continuous program of education, chiefly through personal contact. The 4th War Loan Drive was put over by six million volunteer salesmen plus a paid staff of fewer than two thousand persons in the entire country. Its cost to the government was a fraction of 1 per cent. This is an answer to the criticism occasionally heard that war bond selling is an expensive method of raising money.

Another misconception that needs correction frequently is the impression that bonds sold are cashed in as soon as possible. The fact is that more than 90 per cent of the bonds sold are still in the hands of the original owners. The rate of redemptions is about one-third that of savings bank withdrawals. A particularly vicious untruth occasionally heard is that bonds purchased will not be paid out in full. Only an act of Congress could change the value of the bonds, and no Congress ever legislated against sixty million of its constituents—the number who own bonds today. The obligation of the United States Government toward war bonds is exactly the same as for the dollar bills in one's pocket.

Purchase of enough bonds by enough people is essential for the economic stability of our nation. We cannot let our fighting forces win the war for us in Europe and Asia only to come home to find we have lost their country for them. And so, physicians of Iowa, as we go about our busy tasks let us keep in mind that we, as responsible leaders in our communities, whether or not we are serving on War Finance Committees, can set an example for our neighbors—first, by purchasing as many bonds as we are able ourselves and, second, by telling others the straight facts about war bonds and what this present drive means to the future of our country.

### RAYMOND BLANK MEMORIAL HOSPITAL FOR CHILDREN

Up on Pleasant Street in Des Moines, just west of the Iowa Methodist Hospital, the Raymond Blank Memorial Hospital for Children is nearing completion. Made possible by the generosity of Mr. and Mrs. A. H. Blank as a Memorial to their son Raymond, who died prematurely, the new Children's Hospital is more than a gift to Des Moines—it is a gift to all the people of Iowa. It is expected that its seventy bed capacity will provide facilities for the study and care of children from communities within a wide radius of Des Moines as well as for those in the city itself. The three-story structure has its beautiful black marble main entrance facing to the north on Pleasant Street. On the ground floor to the west is a seventeen bed communicable disease unit where poliomyelitis and other contagious diseases can be cared for under modern isolation technic. Equipment and personnel are being provided for administering the Kenny method of treatment for infantile paralysis patients. In the east half of the ground floor, to the south, space is being arranged for children's outpatient clinics, and to the north will be the physiotherapy quarters, emergency room, laboratory, and nurses' dressing room. The two top floors will have four bed cubicle units on either side of the corridor and at each end of the building. In between will be single and double private or isolation rooms. An unusual feature will be a large room to the south off the middle floor, which will be a combination visual education and play room. Here provision is being made for a built-in motion picture projection apparatus for the entertainment and education of the children. Special rooms are being arranged for the care of premature infants and for other conditions requiring special forms of treatment. A great deal of time and effort has gone into providing the most suitable equipment available in order to ensure no lack on this score for the future patients. Especial mention, too, should be made of another unusual feature which Mr. Blank was able to secure for the hospital through his high position in the motion picture industry. The walls of many of the rooms and even some of the ceilings will be decorated with typical Walt Disney illustrations prepared and supervised by Mr. Disney himself.

Space does not permit further description of this splendid and much needed addition to Iowa's facilities for caring for children, but it is hoped that as physicians come to Des Moines they will visit the hospital in person and familiarize themselves with its further details. The cornerstone laying took place on May 14, and it is expected

that the dedication ceremony will be held around the first of October.

But a fine building and beautiful equipment do not, by themselves, constitute a successful children's hospital. It is the use made of these tools day in and day out, year after year, which counts. Mr. and Mrs. Blank have performed a great public service in making exceptional facilities available for the care of children. Now it will be up to us—doctors, nurses, and others engaged in child health and welfare—to see that the tools which they have provided us are put to the best possible use. Raymond Blank, himself, for many years before his death, had been actively engaged in many phases of child health work. That his parents envisioned this Memorial Hospital as a means of carrying on the work in which he was intensely interested, thereby perpetuating what he would have done himself had he lived, is well known to their many friends. Let us make sure that the Raymond Blank Memorial Hospital for Children fulfills the ideals of its donors and becomes a worthy testimonial to the ambitions of the one in whose memory it is created.

### ORTHOPEDISTS PRESENT REPORT EVALUATING KENNY TREATMENT

In the end it may be found that the greatest contribution Sister Kenny has made to the solution of problems relating to poliomyelitis will not be so much the method of treatment she advocates as the stimulation to further investigation and intensive study her views have occasioned throughout the world. Certain it is that few diseases today are being subjected to such critical observation from all angles as is poliomyelitis, and the credit for this desirable state of affairs can fairly and squarely be given to Sister Kenny. What final conclusions will emerge from the present controversy is not clear, but that the sum total of knowledge concerning this disease will be greatly advanced as a result of opposing views cannot be doubted.

To be welcomed, therefore, are such articles as the one by Ghormley and his committee in the June 17 issue of *The Journal of the American Medical Association*. This group of seven outstanding American orthopedists conducted a careful study of 740 poliomyelitis patients, approximately 650 of whom had been treated by the method advocated by Miss Kenny, with the special purpose in mind of evaluating the Kenny method of treatment. That the committee sharply disagrees with many of the published and spoken views of Miss Kenny should be accepted in the spirit that the issues are thereby clarified and that progress is being made.



Concerning the four major points in Miss Kenny's view of poliomyelitis and which have been published so frequently that they are familiar to all, the committee has the following to say:

"1. Muscle 'Spasm.'—Pohl states that this is the primary lesion in the disease and it is claimed to be mainly responsible for the crippling after-effects. This committee believes that while this does exist in the early phases of the disease it usually disappears spontaneously. There may be residual 'spasm' which can lead to deformity, but it is by no means the cause of the residual paralysis. While this has been emphasized by Miss Kenny it is not a new discovery, as stiffness, muscle tenderness and early contractures have been long recognized and considered an integral part of the acute phase of this disease.

"2. Mental Alienation.—Quoting Pohl again, 'The flaccid muscles are normal. Loss of ability to contract these is due to functional dissociation (alienation) from the nervous system.'

"The statement that the flaccid muscles are normal is obviously not true. There are instances in which a functional loss of use may result from pain, and in these instances function is restored as the pain subsides. Functional disuse may also result from stretch in any muscle opposed by muscles in varying degrees of contracture. Mental alienation has been covered in the past by the terms temporary paralysis, stretch paralysis and physiologic dissociation, and these would seem a more satisfactory scientific explanation than simple 'functional dissociation from the nervous system.' It is thus evident that this condition which they term 'mental alienation' is not a new discovery, having been well described in 1911 by Robert Jones.

"3. Incoordination.—Pohl states: 'Incoordination of muscle action appears in the untreated cases.' It is our impression that this is merely another term for the condition of muscle substitution or mass muscle action of an extremity, long recognized by orthopedic surgeons. As a matter of fact the term 'muscle incoordination' was used by Wilbur to describe this condition in poliomyelitis as early as 1912. This question is of academic interest and of relatively little importance.

"4. Paralysis (denervation now preferred by Miss Kenny).—Pohl states: 'Paralysis due to nerve cell death occurs but is not a common condition. Most supposed weakness is due to untreated spasm and to disuse in the dissociated muscles.'

"It is our belief that if deformities are prevented the flaccid paralysis caused by destruction of nerve cells is the most important cause of crippling."

The committee further outlines the Kenny treatment under the following heads:

"1. Active treatment, including muscle reeducation, is begun as early as possible.

"2. The patient is maintained in the normal standing position in bed.

"3. 'Spasm' and pain are treated by the use of hot fomentations. These are applied and reapplied continuously for about twelve hours per day according to a rigid technic. These are continued until 'spasm' is relieved.

"4. The extremities are carried through as wide a range of movement as can be tolerated several times each day.

"5. Muscle reeducation is begun as early as possible. This is directed toward (a) 'the restoration of mental awareness of muscles', (b) 'restoration of coordination or combating of incoordination' and (c) 'restoration of muscle function.'

"6. No splints or braces are tolerated.

"7. The respirator should not be used on any patient.

"8. Patients and their families are encouraged to believe that complete recovery will ensue or, in the event of residual paralysis, that the Kenny treatment was not instituted early enough or had been improperly administered.

"9. All improvement is attributed to the treatment, and no spontaneous recovery or improvement is recognized.

"10. Balneotherapy is an important adjunct to the foregoing procedures."

Each of these ten points is analyzed and discussed by the committee as follows:

"1. The institution of treatment directed toward the involved muscles as early as possible is desirable, but the general condition of the patient during the acute febrile stage may be such that the handling necessitated by the Kenny treatment can be detrimental. In other words, therapy during the acute febrile stage is primarily a medical problem.

"2. Proper positioning in bed by one means or another has been a standard practice among physicians for over thirty years to our knowledge. It is still a recommended procedure.

"3. Heat in some form, including hot fomentations, has been used by physicians for many years to combat pain in infantile paralysis. In most cases the pain can be relieved by the use of hot fomentations. We have seen few cases, however, in which relief was not afforded by their use. It is the impression of this committee that pain is not an important feature of the disease in most instances and, when present, can be relieved also by other measures. Recovery from 'spasm' in most instances takes place spontaneously. Hot packs may relieve this 'spasm' but so will adequate rest. Therapy directed at pain and 'spasm' should be discontinued as soon as these symptoms subside. We have seen instances in which hot packs seem to increase and prolong the 'spasm.' In some, 'spasm' was relieved after the packs were discontinued. In others, 'spasm' which had been relieved recurred when the packs were discontinued and was again relieved by their reapplication. The use of hot fomentations therefore cannot be considered as a panacea in this disease and their use must be guided by good medical judgment. The rigid technic insisted on by Miss Kenny in the application of these packs is neither important nor essential.

"4. So long as active and passive movement of these extremities is carried out within the range of comfort, this point is acceptable. This procedure has been recommended by many physicians in the past, but again we stress the point that this movement should not be forced beyond the point of pain.

"5. Jones and Lovett described and used a method of muscle reeducation which in principle is similar to the method taught by Miss Kenny. This has served as the basis for orthopedic treatment for many years.

"6. Cases have been seen under Kenny treatment in which early contractures were developing, and by application of plaster splints these contractures were controlled after their correction. This committee believes that splints are beneficial for some patients.

"Braces should form an important part of the treatment during the later stages of this disease. We have seen Kenny treated patients walking with two English style crutches who could be so benefited by braces that the crutches could be discarded, thus liberating the hands for other use.

"7. Respirators have saved many lives and should be used for patients with sufficient paralysis to embarrass respirations.

"8. There is no evidence that the Kenny treatment prevents or decreases the amount of paralysis. We criticize severely the oft repeated statement of Miss Kenny to patients who have come to her after treat-

ment elsewhere that had this case come to her early the disability would have been prevented. Such statements are not founded on facts.

"9. Spontaneous recovery in poliomyelitis occurs in many cases. Reports in the medical literature indicate that this varies in different epidemics from 50 to 80 per cent. We have seen many patients receiving Kenny treatment who showed no muscle involvement at any time, yet she assumes the credit for their satisfactory results and does not take into account the factor of spontaneous recovery.

"10. Pools and baths have long been used in the treatment of poliomyelitis."

The following quotations are from the comments made by the committee at the conclusion of the article.

"Miss Kenny has repeatedly stated that under 'orthodox' treatment only 13 per cent of the patients recovered without paralysis, while under her treatment over 80 per cent recover. We believe that this is a deliberate misrepresentation of the facts of treatment by other methods. This we attribute to her overzealous desire to promote further the adoption of the Kenny treatment. Miss Kenny's statement of 80 per cent recovery under her treatment has not been supported by accurate statistics in a significant number of cases. The figure on 'orthodox' treatment is taken from an article which dealt entirely with severely paralyzed patients. Miss Kenny has been told repeatedly that this is not a fair comparison to make and that, if every case in an epidemic is included in the statistics, recovery from 70 to 90 per cent can be expected from 'orthodox' treatment. Miss Kenny made this inaccurate comparison as late as May, 1944. . . .

"The amount of residual paralysis in any case is dependent on the amount of destruction in the central nervous system if deformities are prevented, and this varies tremendously in different epidemics. . . .

"In the opinion of the committee, after observation of 740 cases, particularly those during the epidemic of 1943, the continuous hot packs for all patients with minimal evidence of 'spasm' is of questionable value and an unnecessary waste of manpower and hospital beds. Several clinics were using prone packs with good effect. The simplicity of their application requires much less manipulation of the patient. Once again we emphasize the fact that good medical judgment should be exercised in determining the cases in which hospital treatment should be instituted or continued. . . .

"Many of those who have used the Kenny method of treatment have repeatedly stated that all paralytic scoliosis can be prevented by this program of care. Among the patients studied by this committee from the last three epidemics, no severe scolioses and only a few slight curvatures of the spine have been noted. However, severe paralytic scoliosis occurs only in growing children and is uncommon within less than three years after the onset of the disease. Several more years must elapse before any final conclusions can be reached with regard to the amelioration or prevention or paralytic scoliosis by means of the Kenny treatment. . . .

"While the committee disapproves of and condemns the wide publicity which has misled the public and many members of the medical profession, it acknowledges that this has stimulated the medical profession to reevaluate known methods of treatment of this disease and to treat it more effectively."

For those of us who must continue to undertake the care of poliomyelitis patients in our practices the report of the committee of orthopedists can only be taken to mean that the answers are

not all in as yet and that we must maintain open minds. In the meantime let us avoid extravagant statements one way or another lest our patients become misled and confused.

### THE AMERICAN MEDICAL ASSOCIATION MEETING

The Ninety-fourth Annual Session of the American Medical Association just concluded in Chicago attracted a large number of physicians from all over the country. The registration for the first four days was 7,187, not quite the 10,000 expected, but still a large number for wartime.

The attendance at the meetings of the House of Delegates was exceptionally large. Many doctors other than delegates attended the sessions and obtained an insight into the workings of the Association. As usual, the business was conducted in a most orderly fashion, with plenty of time allowed for full deliberation of all important questions. Hearings before reference committees were many, and the reports and recommendations of the committees were sound.

The recommendation which held the greatest possibility of dissension was that presented by California that Dr. Olin West should be retired and Dr. Morris Fishbein asked for his resignation. The report of the reference committee was that both resolutions be rejected. Discussion on the floor of the House was lively, but the vote was 144 to 9 in favor of rejecting the California resolution.

Dissatisfaction with the EMIC program as it is administered by the Children's Bureau was evident in reports and resolutions. The House of Delegates reaffirmed its wish that payment for medical services should be placed on an allotment basis rather than as at present, and also asked again that a separate Department of Health be set up inside the Federal Government to take over all health functions now being administered by various agencies, particularly the Children's Bureau.

The work of the new Council on Medical Service and Public Relations has gone far forward during the year. To those who ask for concrete achievements, may we say that the formation of the Washington office alone is something which seemed impossible of procurement a year ago, yet today it is functioning. We think the Iowa State Medical Society showed its wisdom when it affirmed its confidence in the new Council and asked for its continued expansion.

The election of Dr. Roger I. Lee, former chairman of the Board of Trustees, as president-elect assures the Association of a leader who has had wide experience in its many activities and prob-

(Continued on page 340)



# Minutes of the Iowa State Medical Society Ninety-third Annual Session

## April 20 and 21, 1944

### Thursday Morning, April 20, 1944

The opening session of the Ninety-third Annual Session of the Iowa State Medical Society, held at the Hotel Fort Des Moines in Des Moines, April 20 and 21, 1944, was called to order by the president, Dr. Lee R. Woodward of Mason City, at nine-fifteen a. m.

Dr. C. B. Luginbuhl, president of the Polk County Medical Society, welcomed the physicians to Des Moines. Dr. George H. Keeney of Mallard, first vice president of the Iowa State Medical Society, responded for the Society.

Dr. Woodward then turned the meeting over to Dr. Daniel J. Glomset of Des Moines, chairman of the Medical Section. Dr. Glomset explained that Dr. Anton J. Carlson of Chicago, guest speaker, would be unable to appear as scheduled, and he introduced Dr. Leslie W. Swanson of Mason City, who discussed "The Rheumatic Heart." After a brief intermission to visit exhibits, Dr. Fred M. Smith of Iowa City gave a paper on "Making a Cardiac Diagnosis." Dr. Benjamin F. Wolverton of Cedar Rapids next discussed "Pathogenesis of Congestive Heart Failure," and Dr. Robert N. Larimer of Sioux City presented the final paper of the morning on "Treatment of Congestive Heart Failure." The meeting adjourned at eleven-thirty a. m.

### Thursday Afternoon, April 20, 1944

Dr. John E. Rock of Davenport, chairman of the Eye, Ear, Nose and Throat Section, presided over the afternoon session in the main ballroom. The first speaker was Dr. William N. Hahn of Omaha, who discussed "Procedures Following Some of the More Frequent Eye Injuries." Dr. Clarence D. Selby of Detroit next spoke on "A Postwar Industrial Medical Program," after which there was a brief intermission.

Lieutenant Colonel Malcolm J. Farrell, M.C., of Washington discussed "Developments in Military Neuropsychiatry," Dr. Ira N. Crow of Fairfield spoke on "Eye Findings in Diabetes," and the meeting closed at four-thirty p. m. after the showing of a moving picture entitled "Otoscopy in the Inflammations."

### Friday Morning, April 21, 1944

The Friday morning session was called to order by the president, Dr. Lee R. Woodward, at nine-fifteen. Dr. Woodward introduced the first speaker, Dr. Walter H. Judd, Congressman from Minnesota, who talked on "Postwar Planning." After a recess, Dr. Alfred W. Adson of Rochester discussed "The Activities of the Council on Medical Service and Public Relations and the Responsibilities of Individual Physicians." Because of lack of time, Dr. Daniel J. Glomset of Des Moines forewent giving his paper on "A Clinician's Dabbling in Scientific Research." The president gave his presidential address. The report of the House of Delegates was given, the new president was installed, and the meeting adjourned at eleven-forty a. m.

### Friday Afternoon, April 21, 1944

Dr. Everett D. Plass of Iowa City, chairman of the Surgical Section, presided over the Friday afternoon session. Dr. Norman F. Miller of Ann Arbor gave the first paper of the afternoon on "Toxemias of Late Pregnancy"; he was followed by Dr. Edward W. Anderson of Des Moines who discussed "Pregnancy and Heart Disease," Dr. Willis E. Brown of Iowa City who spoke on "Abortions," Dr. Edith Thompson of Iowa City with a talk on "Obstetric Anesthesia," and Dr. Harold W. Morgan of Mason City who discussed "Carcinoma of the Cervix." A question and answer period followed, and the meeting adjourned at five p. m.

## Eye, Ear, Nose and Throat Section

### Thursday Morning, April 20, 1944

The Eye, Ear, Nose and Throat Section met in the Green Room at the Hotel Fort Des Moines in Des Moines Thursday morning, April 20, with Dr. John E. Rock of Davenport, chairman of the section, presiding. The meeting was opened with a talk by Dr. William N. Hahn of Omaha, who discussed "Therapeutic Agents in the Treatment of Glau-

coma." This was discussed by Dr. Joseph E. Dvorak of Sioux City. Dr. Henry A. Bender of Waterloo presented "A Case Report of Celiac Disease with Acute Mastoid," which was discussed by Dr. Harry H. Lamb of Davenport. Dr. Charles C. Walker of Des Moines spoke on "The Hard of Hearing and Hearing Aids," and Dr. Carl E. Sampson of Creston gave the final paper of the morning.

# Transactions of the House of Delegates

## Iowa State Medical Society, Ninety-third Annual Session

### April 19 and 21, 1944

Wednesday Evening, April 19, 1944

The first meeting of the House of Delegates, held in connection with the Ninety-third Annual Session of the Iowa State Medical Society, at the Hotel Fort Des Moines, Des Moines, April 19 to 21, 1944, convened at eight-five o'clock, Dr. M. C. Hennessy, President-Elect, presiding as Speaker.

The Speaker: The meeting of the House of Delegates will now come to order. The first order of business will be the roll call.

The Secretary: Mr. Speaker, I *move* that the signed registration cards constitute the roll call.

*The motion was seconded, put to a vote and passed.*

#### Delegates

Allamakee.....	J. W. Thornton
Appanoose.....	B. B. Parker
Black Hawk.....	E. E. Magee
Boone.....	A. B. Deering
Buchanan.....	F. F. Agnew
Butler.....	Bruce Ensley
Cerro Gordo.....	H. D. Fallows
Clinton.....	R. F. Luse
Dallas-Guthrie.....	S. J. Brown
Decatur.....	G. P. Reed
Des Moines.....	F. G. Ober
Dickinson.....	T. L. Ward
Dubuque.....	J. C. Painter
Emmet.....	M. T. Morton
Fayette.....	C. C. Hall
Floyd.....	O. H. Banton
Franklin.....	J. C. Powers
Fremont.....	Kenneth Murchison
Grundy.....	H. V. Kahler
Hamilton.....	M. B. Galloway
Howard.....	W. A. Bockoven
Jefferson.....	J. S. Gaumer
Johnson.....	E. M. MacEwen
Johnson.....	J. W. Dulin
Johnson.....	A. W. Bennett
Keokuk.....	C. L. Heald
Kossuth.....	W. F. Hamstreet
Lee.....	B. J. Dierker
Linn.....	J. K. von Lackum
Linn.....	T. F. Suchomel
Madison.....	I. K. Sayre
Marion.....	E. C. McClure
Marshall.....	A. D. Woods
Mitchell.....	G. A. Lott
Monroe.....	C. C. Fowler
O'Brien.....	W. R. Brock
Osceola.....	W. F. Thayer
Pocahontas.....	W. F. Brinkman
Polk.....	R. C. Doolittle
Polk.....	L. F. Hill
Polk.....	H. W. Dahl
Pottawattamie.....	G. V. Caughlan
Poweshiek.....	S. D. Porter
Ringgold.....	E. J. Watson
Scott.....	George Braunlich
Scott.....	W. C. Goenne
Story.....	E. B. Bush
Taylor.....	J. H. Gasson
Van Buren.....	L. A. Coffin
Wapello.....	C. A. Henry

Warren.....	G. A. Jardine
Washington.....	W. L. Alcorn
Wayne.....	A. E. Davis
Webster.....	T. J. Dorsey
Winneshiek.....	E. F. Hagen
Woodbury.....	R. N. Larimer
Woodbury.....	C. T. Maxwell
Wright.....	R. D. Bernard

#### Alternates

Buena Vista.....	H. E. Farnsworth
Cass.....	W. S. Greenleaf
Davis.....	C. H. Cronk
Greene.....	J. M. Jackson
Humboldt.....	C. A. Newman
Iowa.....	H. G. Moershel
Jasper.....	J. W. Billingsley
Jones.....	T. M. Redmond
Lucas.....	G. F. Niblock
Page.....	J. F. Aldrich
Palo Alto.....	G. H. Keeney
Polk.....	C. A. Sonos
Polk.....	L. M. Overton
Union.....	C. C. Rambo

#### State Society Officers

President.....	L. R. Woodward
President-Elect.....	M. C. Hennessy
Secretary.....	R. L. Parker
Treasurer.....	J. A. Downing
Trustee.....	O. J. Fay
Trustee.....	W. A. Sternberg
Trustee.....	J. I. Marker
Councilor.....	L. L. Carr
Councilor.....	C. H. Cretzmeyer
Councilor.....	J. B. Knipe
Councilor.....	J. E. Reeder
Councilor.....	E. F. Beeh
Councilor.....	J. C. Hill
Councilor.....	H. A. Householder
Councilor.....	R. C. Gutch
Councilor.....	J. G. Macrae

The Speaker: The next order of business is the approval of the minutes of the Friday morning session of 1943.

Dr. Suchomel: Mr. Speaker, I *move* that the minutes as published in the July issue of the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY constitute the official approval of this body of the minutes of the Friday morning session of last year.

*The motion was seconded, put to a vote, and carried.*

The Speaker: We will now have the reports of the officers. The report of the Secretary.

The Secretary: Mr. Speaker, I *move* that the reports as published in the Handbook be approved by this body and that opportunity be given for any supplementary report.

*The motion was seconded, put to a vote, and carried.*



Reports of Officers

REPORT OF THE SECRETARY

House of Delegates, Iowa State Medical Society:  
Herewith is the report of your secretary for the year 1943:

MEMBERSHIP

A tabulation of the membership record for each county in 1943 will be found on the following pages, but it may be summarized as follows:

Active Members (Life Members included).....	2,471
Delinquent Members .....	15
Eligible Non-Members .....	100
Ineligible Non-Members .....	67
Physicians Not in Practice or Retired.....	149

There were 2,490 members in 1942, as compared to 2,471 in 1943. This loss is not surprising in view of the fact that practically no new physicians located in the state during the year, and there was the usual loss because of death. Included in this figure are 165 life members and 595 in military service. This leaves 1,711 dues-paying members, since the dues for the two groups above are waived. The new rule regarding life membership which was passed by the House of Delegates last year made it possible to grant such membership to fourteen doctors. Other names will probably be presented this year.

One Hundred Per Cent Counties

The record of counties which had 100 per cent membership in 1943 was remarkable. Forty-eight counties achieved the mark, or 50 per cent of the societies. New members to the group this year were Benton, Butler, Hamilton, Humboldt, Jackson, Jones, Lee, Marion, Muscatine, Shelby and Sioux. Those who failed to achieve it were Black Hawk, Scott, and Union, although they were so listed in 1942. By councilor districts the record is as follows: First District, three counties; Second District, six counties; Third District, six counties; Fourth District, four counties; Fifth District, four counties; Sixth District, five counties; Seventh District, two counties; Eighth District, six counties; Ninth District, four counties; Tenth District, five counties; and Eleventh District, three counties.

Following is the list of counties on the honor roll:

Adair	Louisa
Adams	Lucas
Audubon	Lyon
Benton	Madison
Boone	Mahaska
Buena Vista	Marion
Butler	Marshall
Cerro Gordo	Monona
Chickasaw	Montgomery
Clarke	Muscatine
Davis	Osceola
Des Moines	Palo Alto
Dickinson	Poweshiek
Emmet	Sac
Floyd	Shelby
Hamilton	Sioux

Hardin	Story
Henry	Tama
Howard	Taylor
Humboldt	Washington
Ida	Wayne
Jackson	Webster
Jones	Worth
Lee	Wright

The total membership percentage is higher than it has ever been, 95.5 per cent, of which we may well be proud. Credit for this fine record is due greatly to the efforts of the county society secretaries, whose help in maintaining our records is invaluable. We are dependent on them for the correction of our records and for the maintenance of the membership rolls, and this record number of 100 per cent counties was achieved largely because of them.

1943 MEMBERSHIP RECORD

County	1943 Membership	Delinquent Members	Eligible Non-Members	Ineligible Non-Members	Not in Practice or Retired	Percentage of Eligible Physicians Who Are Members
Adair	9	...	...	...	1	100
Adams	8	...	...	...	...	100
Allamakee	8	...	2	...	...	80
Appanoose	15	1	3	...	...	79
Audubon	9	...	...	...	...	100
Benton	18	...	...	...	...	100
Black Hawk	70	1	...	6	2	99
Boone	20	...	...	2	...	100
Bremer	14	...	3	1	...	82
Buchanan	22	...	1	...	...	96
Buena Vista	18	...	...	...	1	100
Butler	13	...	...	...	...	100
Calhoun	18	1	...	...	1	95
Carroll	23	...	1	...	2	96
Cass	18	...	1	...	...	95
Cedar	10	...	4	...	1	71
Cerro Gordo	50	...	...	...	2	100
Cherokee	16	1	3	3	3	80
Chickasaw	15	...	...	...	...	100
Clarke	12	...	...	...	...	100
Clay	7	...	2	2	...	86
Clayton	17	...	4	...	1	81
Clinton	44	...	1	3	1	98
Crawford	10	1	2	2	...	77
Dallas-Guthrie	41	1	3	1	2	91
Davis	8	...	...	...	...	100
Deceatur	8	...	4	...	...	67
Delaware	11	...	4	...	1	73
Des Moines	37	...	...	1	...	100
Dickinson	12	...	...	...	...	100
Dubuque	72	...	1	...	1	99
Emmet	13	...	...	...	...	100
Fayette	27	1	5	...	2	81
Floyd	16	...	...	...	1	100
Franklin	13	...	1	...	...	93
Fremont	11	...	1	...	...	92
Greene	21	1	...	...	2	95
Grundy	12	...	1	...	...	92
Hamilton	17	...	...	...	2	100
Hancock-Winnebagoe	22	1	1	...	3	92
Hardin	24	...	...	1	5	100
Henry	14	...	1	1	1	93
Howard	18	...	...	2	...	100
Humboldt	10	...	...	...	...	100
Ida	9	...	...	...	...	100
Iowa	13	...	...	...	2	100
Jackson	11	...	4	...	4	73
Jasper	16	...	...	...	3	100
Jefferson	22	...	2	...	1	92
Johnson	16	...	1	...	1	94
Jones	162	...	7	...	1	95
Keokuk	13	...	...	...	...	100
Kossuth	15	...	2	...	1	88
Lee	14	...	1	2	1	93
Linn	40	...	...	4	1	100
Louis	108	...	3	1	3	97
Louisia	9	...	...	...	2	100

County	1943 Membership	Delinquent Members	Eligible Non-Members	Ineligible Non-Members	Not in Practice or Retired	Percentage of Eligible Physicians Who Are Members
Lucas	12	...	...	...	1	100
Lyon	10	...	...	...	...	100
Madison	10	...	...	...	...	100
Mahaska	25	...	...	...	1	100
Marion	19	...	...	1	12	100
Marshall	44	...	...	...	2	100
Mills	10	...	1	...	1	91
Mitchell	13	...	3	...	...	80
Monona	16	...	...	...	1	100
Monroe	12	...	1	...	...	92
Montgomery	18	...	...	...	1	100
Muscatine	18	...	...	3	2	100
O'Brien	18	...	1	...	...	95
Osceola	12	...	...	...	...	100
PAGE	26	...	1	1	4	96
Palo Alto	13	...	...	...	...	100
Plymouth	14	...	3	...	1	82
Pocahontas	14	...	2	...	...	88
Polk	257	...	5	11	41	98
Pottawattamie	61	3	4	2	1	90
Poweshiek	20	...	...	...	...	100
Ringgold	6	...	2	...	1	75
Ross	19	...	...	...	...	100
Scott	90	1	...	6	4	99
Shelby	7	...	...	...	1	100
Sioux	17	...	...	...	...	100
St. Louis	34	...	...	...	2	100
Tama	21	...	...	...	3	100
Taylor	6	...	...	...	1	100
Union	14	1	...	...	...	93
Van Buren	8	...	1	...	1	90
Wapello	44	...	1	2	1	98
Warren	10	...	2	...	...	83
Washington	19	...	...	...	...	100
Wayne	11	...	...	...	...	100
Webster	42	...	...	...	3	100
Winnebago	17	...	1	1	1	94
Woodbury	116	1	3	5	4	97
Worth	5	...	...	...	...	100
Wright	24	...	...	...	2	100
Total	2,471	15	100	67	149	95.5%

### Committee Activities

The Committee on Maternal and Child Health has had a most active year because of the EMIC program, and the central office has devoted much time to that problem. The Wagner-Murray-Dingell bill probably occasioned the most work in the office. The steering committee of the Iowa Interprofessional Association was very active in preparing material for distribution, all of that work being done through the office; and the new Committee on Medical Service and Public Relations also concentrated on that particular subject. A great deal of material has been prepared and distributed throughout the state. The Woman's Auxiliary has been given some material almost every month; many individuals have been provided with speaker's kits; and every doctor has been mailed a copy of both of Mr. Darling's cartoons on the bill.

### Financial Report

The by-laws make the secretary responsible for collecting dues and other Society income. This has been done and the funds so accumulated have been turned over to the treasurer whose report will follow.

Robert L. Parker, Secretary

### REPORT OF THE TREASURER

House of Delegates, Iowa State Medical Society:

The financial statement of the Iowa State Medical Society for 1943 has been prepared in as simple and

understandable a form as possible, so that members may see the sources of income of the Society, and through what channels it was distributed. The Society operates on a budget system, with the various departments being allocated a certain operating fund each year. These usually reflect the activity of the various departments pretty accurately, although in wartime much of the business of various committees is transacted by correspondence.

The financial statement of the Society is as follows:

### INCOME AND EXPENSE ACCOUNT

#### INCOME

Annual session	\$ 2,817.50	
Dues	16,982.50	
Interest on savings	64.87	
Interest on bonds	1,092.50	
Journal—		
Advertising	\$8,607.40	
Reprints	1,039.57	9,646.97
Speakers Bureau, Fees	160.00	
Miscellaneous	193.40	
<b>TOTAL INCOME</b>	<b>\$30,957.74</b>	

#### EXPENDITURES

Administrative Miscellaneous	\$ 691.44	
Annual Session	2,148.48	
Bank Charges	2.00	
Council	252.31	
County Society Services	157.05	
General Salaries	5,386.30	
Journal—		
Salaries	\$3,333.75	
Printing and Engraving	8,546.62	
Reprints	1,009.12	12,889.49
Legislative Committee	4,500.00	
Medical Economics Committee	139.40	
Medicolegal Committee	50.00	
Other Committees	667.77	
Rent and Office Supplies	1,751.77	
Speakers Bureau, Travel Expense	718.60	
Stationery and Printing	486.17	
Trustees	142.56	
<b>TOTAL EXPENDITURES</b>	<b>\$29,983.34</b>	

#### EXCESS INCOME OVER

EXPENDITURES	974.40
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Investments and total funds are shown in the following analysis and summary:

Balance on hand at first of year:

Cash in Banks	\$ 5,033.08	
Bonds	49,491.09	\$54,524.17
Net Income for year (1943)		974.40

**TOTAL FUNDS** .....\$55,498.57



## Represented by:

## Cash in Bank:

Bankers Trust Co.		
(Treasurer's Account) ..\$	843.53	
Bankers Trust Co.		
(Secretary's Account) ..	2,228.13	
Bankers Trust Co.		
(Savings Account) .....	2,935.82	\$ 6,007.48

## Treasury Bonds:

2% due 3-15-50 (Par value) .....	\$25,500.00	
2½% due 12-15-53 (Par value) .....	5,000.00	
2¾% due 6-15-54 (Par value) .....	5,000.00	
3% due 9-15-55 (Par value) ..	9,000.00	
Less discount on purchase of bonds .....	8.91	44,491.09

U. S. Savings Bonds (Maturity value \$4,000.00) .....	3,000.00	
U. S. Defense Bonds due December, 1953, 2½% Series G.....	1,000.00	
U. S. Defense Bonds due January, 1954, 2½% Series G.....	1,000.00	

TOTAL CASH AND BONDS (as above).....\$55,498.57

James A. Downing, Treasurer

## REPORT OF THE BOARD OF TRUSTEES

To the Members of the House of Delegates of the Iowa State Medical Society:

The following annual report of the Board of Trustees is respectfully submitted. The reports of the officers, standing committees, the special committees, and the committees of the Council are submitted by them and published in this handbook. All of these reports should be studied carefully because they give an over-all picture of the conduct of your society during the past year.

Meetings of the Board of Trustees were held in January, April, June, July and October. All meetings were held in the central office, 505 Bankers Trust Building, Des Moines, with all trustees present. Meetings of the Board were also attended by the secretary, executive secretary, president, president-elect and editor of the Journal when possible for them to do so. Numerous items of business were transacted by letter and telephone, thus saving time for members as well as gas and rubber.

## Income and Expenditures

Chapter 4, Section 5 of the by-laws of the Society directs that the Board of Trustees shall have the accounts of the treasurer and of the Journal office audited annually or oftener if deemed necessary. The audit for 1943 was made by William Widdup & Company, Certified Public Accountants, Des Moines, Iowa, and a copy is on file in the central office of the Society where it is open to inspection by any mem-

ber during office hours. Each member of the Board also has a copy of the audit and it is also open to inspection.

Gross income of the Society for the year 1943 was \$30,957.74. The income from dues was \$16,982.50, with dues waived for 595 doctors in military service during the year. Income from the annual session was \$2,817.50; from interest, \$1,157.37; Journal advertising and reprints, \$9,646.97; Speakers Bureau, \$160.00; and miscellaneous, \$193.40. Expenditures were \$29,983.34; net income was \$974.40. With the lessened income and increased costs incident to the war, a deficit rather than a surplus might be anticipated. However, the increased professional burdens which our members on the home front must carry, the difficulties of transportation, and the need to conserve gas and rubber, all have necessitated curtailing the number of committee meetings. It has seemed wise, also, to maintain various other society activities merely as skeleton organizations which can be carried on with practically no expense during the war but which will be ready to function again without delay once the war is won.

With an estimated decreased income and increased cost of operation, it is almost certain that there will be a deficit the next year or so. However, the Board of Trustees believes that the dues should not be increased, but that the necessary funds to meet this deficit should be drawn from the Society's reserves which have been set up over past years to meet just such possible emergencies. The Board recommends, therefore, that the dues remain \$10.00.

The Board of Trustees expresses its grateful appreciation of the loyalty and efficiency which the various officers and committees of the Society have exhibited during the past year, and especially to the personnel of the central office which has done its full share in contributing to the successful functioning of the Iowa State Medical Society.

Respectfully submitted,

Oliver J. Fay, Chairman  
John I. Marker  
Walter A. Sternberg

## REPORT OF THE CHAIRMAN OF THE COUNCIL

No meetings of the Council were held the past year. All necessary business was carried out by correspondence. One Executive Council meeting was held and for this report I refer you to the report of the Medical Economics Committee.

James E. Reeder, Chairman

## REPORT OF THE FIRST COUNCILOR DISTRICT

Every county in the district has almost the same report, which is that the doctors are kept very busy supplying adequate medical and surgical care to their local communities. It speaks well for the district, however, that no complaints that adequate care is not being received have been reported. All the counties have maintained their local society and their membership in the State society, as best they could.

We had fifty-four doctors present at the president's meeting in this district last November and the program was both entertaining and educational. Much dissatisfaction with the EMIC program was reported but no recommendations to improve the matter were presented. At least two counties in this district, and possibly more, are of the opinion that we should not support the program at all until it is modified.

Scientific meetings are being held in most parts of the district, but naturally the speakers are local physicians. All in all, I feel that in spite of very abnormal war situations which compel us to work harder, and travel less, the home front of the First District is carrying on in the true spirit of Democracy.

L. L. Carr, Councilor

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### REPORT OF THE SECOND COUNCILOR DISTRICT

The conditions in the Second District are very much the same as they were a year ago. Some counties have lost young men to the armed forces; some have lost older men by death; and some of the older men do not seem to be able to stand the added strain thrown upon them. Consequently, some counties are badly depleted and have only three or four regular practitioners left to carry the load. Most of the counties have engaged in an immunizing campaign for smallpox and diphtheria; most of them have joined in the tuberculosis program and have taken films of many persons' chests. The scientific programs have been fairly well maintained over the district, and the indigents are receiving satisfactory care. By and large, medical conditions are as nearly normal as the times warrant in this section of the state.

C. H. Cretzmeyer, Councilor

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### REPORT OF THE THIRD COUNCILOR DISTRICT

The medical situation in the Third Councilor District is very satisfactory as a whole and very little changed from last year with the exception that additional men have been called into service, thus further depleting our ranks and making additional burdens for those who are left at home. I have heard of no locality in the district, however, that is suffering from lack of medical attention. Most of the counties are not having as many meetings as in the past, due to the heavy demands on the individual members but one of our counties, Pocahontas, has managed to hold regular monthly meetings during the year. We still maintain our good record of membership in this district with several of our counties in the 100 per cent class.

The usual immunization and tuberculosis programs have been successfully sponsored by a majority of the societies in the district.

During the early fall, the Palo Alto Medical Society gave a testimonial dinner in Emmetsburg to

another of its members who had practiced the science and art of medicine in that locality for over fifty years. The recipient of this honor was Dr. James W. Woodbridge, formerly of Cylinder, but now of Emmetsburg. Dr. Woodbridge was presented with a Fifty Year Club certificate by a representative of the State Society with appropriate ceremonies.

O'Brien county sponsored a postgraduate course at Sheldon during the fall and early winter which was highly successful in every respect. Sheldon was also host to one of the president's meetings held in October, which was largely attended by the physicians of the district. All in all, I feel that organized medicine is on a high plane in this district and will so continue for the "duration" and after.

J. B. Knipe, Councilor

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### REPORT OF THE FOURTH COUNCILOR DISTRICT

There is very little to report on the activity of the Fourth District. One district meeting was held in November at Denison with an excellent attendance considering the shortage of physicians. There was a complete discussion of the maternal and child health program, followed by scientific papers on vitamin therapy and the sulfonamides.

James E. Reeder, Councilor

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### REPORT OF THE FIFTH COUNCILOR DISTRICT

The physicians of this district have made every effort to give adequate medical service to all, but because of overwork and the shortage of medical men have found it difficult to respond wholeheartedly and with enthusiasm to some of the work. A great many of the people still are not mindful of the fact that physicians are tired and overworked; they still make unnecessary calls upon the physician's time.

Scientific meetings have been held occasionally when time and conditions were satisfactory. However, very few outside men have been utilized because of the fact that they were busy and the meetings held were very low in attendance. I believe that the reason for this is the shortage of physicians and that as soon as this can be rectified the county units will again get together for scientific programs and meetings.

E. F. Beeh, Councilor

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### REPORT OF THE SIXTH COUNCILOR DISTRICT

Each county medical society in the Sixth District has retained its identity during the past year. Some counties have had a hectic time in their endeavor to care for the medical needs of the civilian population and at the same time maintain a county organization with regular or occasional meetings.

Black Hawk, Marshall and Hardin counties have held regular scientific meetings. Some of the programs consisted of films and slides sent by the Speakers Bureau and by clinics outside of the state. An



excellent president's meeting was held in Toledo on November 9, 1943. The subjects for discussion were the Wagner-Murray-Dingell bill and the federal program for emergency maternal and infant care. The scientific discussions on the program were concerned with vitamins and sulfonamides.

The membership in active practice in this district has been markedly reduced due to the large group of doctors in the armed forces. Black Hawk county reports three new members. All of our counties have had business meetings to elect officers and to collect dues. Most of our counties have contracts with the boards of supervisors for medical care of the indigents. This care has been reduced from 65 per cent to 75 per cent of what it was before the war. We hear of no complaints from those who need medical care and are unable to obtain it.

Immunization clinics directed against smallpox and diphtheria have continued throughout the district. The Parent-Teachers organizations have been very active.

The Poweshiek County Society approved the Blue Cross hospital insurance plan and adopted a resolution permitting its members to carry such insurance on a voluntary basis.

We are passing through the chill and arrested phase of our social and economic setup incident to the World War. We are deluged with requests from our people for medical service. We will not let them down.

James C. Hill, Councilor

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### REPORT OF THE SEVENTH COUNCILOR DISTRICT

A report from the Seventh District at this time is a report of the wartime activities of the doctors' activities. We find the rural districts are more affected by the shortage of doctors than are the urban due to the extra miles which must be traveled to serve the people, plus the lack of nursing facilities and sometimes the lack of ability to get the patients into the hospital.

In the Seventh District there have been several county society or group meetings as well as the president's meeting for the Seventh District at which the Wagner-Murray-Dingell bill and the Emergency Maternity and Infant Care program were thoroughly discussed. It was the consensus in all of these meetings that these bills were an attempt toward regimentation of the medical profession, and there was a wish expressed for state and nation-wide formulation of a counter plan whereby the proper care might be given to the needy.

We have been carrying out the immunization plan in all the communities as usual. The attitude of the public has been very commendable in its attempt to make the extra labors of the profession possible.

H. A. Householder, Councilor

### REPORT OF THE EIGHTH COUNCILOR DISTRICT

All of the societies in the Eighth District are continuing their activities, although some have not had many meetings. Scott county, with a present membership of 56 and 35 members in service, meets monthly except during the summer months, with an average attendance of 40. Their speakers are usually from outside the state. Louisa county still keeps up its good record with seven members, 11 meetings a year with an average attendance of five. Louisa county has two men in the service. Lee county has had no meetings during the year due to the impossibility of securing suitable speakers. Travel restrictions have worked considerable hardships on societies in getting speakers from distant points. Lee county has 10 doctors in service. Henry county in association with the dentists and physicians from the State Hospital has been able to keep up its meetings. Washington county has kept up bi-monthly meetings as has Jefferson county; both of these societies have combined hospital staff meetings with the county society in order to lessen calls on the doctors' time. Washington county has three members in the service, plus four recent graduates who entered service direct from internship. Jefferson county has four. Van Buren has had no meetings during the year, and has no member in the service because there is only one doctor in the county under 60 years of age. Dr. Gilfillan of Cantril has retired and left the state, which leaves six in the county. Muscatine county had three meetings during the year, the usual amount of interest. Seven men from the county are in the service. Des Moines county has seven men in the service. The society has maintained its usual interest. This society has sponsored some advertising campaigns and has been very active in various ways against the Wagner bill. Several of the counties continued their financial services with the boards of supervisors for the care of the indigent. Altogether more than 22 per cent of the doctors who were in practice in this district are now in the armed forces.

C. A. Boice, Councilor

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### REPORT OF THE NINTH COUNCILOR DISTRICT

Counties of the Ninth Councilor District have carried on about as usual for the year 1943 with scientific programs, programs of immunization for smallpox and diphtheria and in several counties a tuberculosis program. One county gave a tuberculin test to all rural school children if so requested by their parents. Although the EMIC program is not satisfactory to most of us, our sense of duty has prompted us to cooperate, albeit with considerable discussion et cetera. The relief problem is still bothersome in one or two counties, and obtaining medical fees from the old age recipients continues to be a headache in most cases, but we hope some better plan will be evolved.

Membership is excellent; there are a number of 100

per cent counties. No district meeting was held in the Ninth District, our members attending other district meetings, either at Fairfield or at Osceola. A good representation was present at both meetings.

With the fact in mind that our members in the armed forces are counting on us to protect their interests on the home front may we meet our new problems with determination.

R. C. Gutch, Councilor

### REPORT OF THE TENTH COUNCILOR DISTRICT

Except for the president's meeting which was enthusiastically received, there has been no activity of a district nature held in the past year. A few of the counties report county meetings, but for the most part, remaining medical personnel have been too few and too busy to render meetings possible.

The Tenth District is almost exclusively rural and in normal times understaffed with doctors. The medical service to the district has been depleted to an alarming degree because of several doctors entering military service. Disaster has struck some of the

older physicians who it was hoped would be able to carry the added burden of extra service. The exact number of physicians in each county serving on the home front is as follows: Adair, 7; Adams, 2; Clarke, 5; Decatur, 6; Madison, 5; Ringgold, 5; Taylor, 3; Union, 10; and Warren, 4. These remaining physicians are carrying on in a remarkable way in spite of the handicaps that confront them.

J. G. Macrae, Councilor

### REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

The report of the delegates to the American Medical Association was prepared by Dr. A. D. Woods and published in the August, 1943, issue of the Journal of the Iowa State Medical Society. This was done so that members of the Society might know at once the actions taken at the annual meeting of the House of Delegates of the American Medical Association, and the same procedure will probably be followed in coming years.

T. F. Thornton  
R. D. Bernard  
A. D. Woods

## Reports of Standing Committees

### REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

The Committee on Constitution and By-Laws has no changes to suggest this year. It has not been apprised of the need for change by any officer or committee, and its recommendation, therefore, is for a continuance of the constitution and by-laws as they now stand.

John H. Henkin, Chairman  
William L. Alcorn  
Bush Houston

### REPORT OF THE COMMITTEE ON FINANCE

The Committee on Finance of the Iowa State Medical Society was called to meet in the central office Wednesday, February 23, 1944, to examine the books of the State Medical Society. Dr. O. F. Parish was unable to attend, but Dr. E. C. McClure and Dr. A. S. Bowers were present and checked the audit with the orders and checks issued throughout the year, and found everything in order.

It was found that both income and expenses were materially less in 1943 than in previous years, and a further decrease in income was foreseen for 1944, with even more physicians in service. However, the Committee felt that dues for men in service should be waived, and the deficit, if any, met by drawing upon the surplus of the Society.

Dr. McClure as chairman was appointed to audit the accounts of the Legislative Committee, and this was done shortly after the annual meeting in 1943.

Ernest C. McClure, Chairman  
Arthur S. Bowers  
Ora F. Parish

### REPORT OF THE MEDICAL ECONOMICS COMMITTEE

A large amount of the work of this Committee was done by mail throughout the year. Approximately 150 communications were handled. There was one meeting of the Committee at the central office in Des Moines on June 20, 1943.

*Hospital Service Inc.* The proposed extension of coverage by Hospital Service Inc. was studied by the individual members of the Committee. The chief objections to the extension were raised by the radiologists and the anesthetists. At the meeting on June 20, the Committee recommended that Hospital Service Inc. pay to the hospital its portion of the charge involved in taking x-ray pictures and making electrocardiograms but pay no fees for the actual medical service rendered by a doctor except directly to the doctor.

The Chairman of this Committee, at the request of President Woodward, attended the meeting of the Executive Council on August 29 and presented to the Council the recommendations of the Committee together with the evidence received and objections raised.

*Old Age Assistance.* The Committee has worked in close conjunction with the Department of Social Welfare throughout the year. Dr. Channing Smith, medical advisor to the Department of Social Welfare, attended our meeting on June 20, and presented the problems incident to the administration of Old Age Assistance.

Our Committee prepared and published in the August Journal information pertinent to the profession.



Our Committee was polled in November, concerning the question of fees and treatment. The consensus was that fees allowed should be those generally charged for similar services to other patients in the same localities; that a statewide fee bill would in many respects be desirable, but that a wide variety of conditions make it very difficult to prepare one; that the use of high priced biologicals, vitamins and other preparations should be limited to cases in which there is a definitely established indication of efficiency higher than that of U.S.P. drugs.

*Collection Agencies.* Routine matters dealing with the approval of collection agencies were handled by mail.

*Transient Workers.* The importation of a group of Jamaican transient workers in agriculture in the middle west was reported. Communication with the central office indicated no problems in Iowa. No action was taken on this matter.

*President's Meetings.* The members of this Committee gave addresses at the president's meetings in the fall, covering the subjects of the Wagner Bill, Old Age Assistance and the NPC.

*Prepayment Medical Plans.* The Committee is making a study of prepayment medical and surgical benefit plans. It is reported that Woodbury County is now working on a plan along the lines approved by a special meeting of the House of Delegates in 1938.

*Health and Accident Group Insurance.* The Loyalty Group of Insurance Companies have presented to the Committee, through their representative in Sioux City, Ben Kloster, and through their central office in Chicago, a plan for a group insurance policy covering disabilities. This plan is already in operation in Woodbury county on a county society basis. Fifty members are insured.

Charles T. Maxwell, Chairman  
Martin I. Olsen  
Bernard B. Parker  
Herbert E. Stroy  
Howard D. Fallows

## REPORT OF THE MEDICOLEGAL COMMITTEE

The Medicolegal Committee wishes to report that things have been quiet along the legal front during the past year. Nothing important or interesting has come to our attention. In this time of hurry and worry, our members should remember that it is easy to neglect the needs of patients. Such neglect might be the occasion for malpractice suit. Please watch your step.

Frank A. Ely, Chairman

## REPORT OF THE COMMITTEE ON NECROLOGY

The Iowa State Medical Society lost 51 of its members by death in 1943. One of these, Dr. Martin E. Harlan of Onawa, lost his life by drowning while in service in the South Pacific.

Will the House of Delegates please stand for a moment in memoriam while I read the names of our comrades who are no longer with us.

Name	Town	Age
Andrew R. Amos.....	Beverly Hills	85
George W. Anderson.....	Early	71
Royal A. Becker.....	Atlantic	56
Malcolm S. Campbell.....	Malvern	53
Louis L. Corcoran.....	Rock Rapids	67
William E. Costello.....	Dubuque	76
Benjamin Courshon.....	Sioux City	75
Thomas C. Denny.....	Des Moines	56
James M. Donelan.....	Glenwood	83
John W. Eckstein.....	Ryan	54
Hans E. Eiel.....	Buffalo Center	67
Edmond B. B. Fulliam, Jr.....	Muscatine	51
Samuel T. Gray.....	Albia	77
Jesse T. Grayston.....	Cedar Rapids	54
Otto E. Haisch.....	Dubuque	69
William C. Hand.....	Hartley	66
William Hansell.....	Ottumwa	88
Martin E. Harlan.....	Onawa	32
Walter F. Harriman.....	Sioux City	45
Alice H. Hatch.....	Des Moines	79
George E. Hermence.....	Marshalltown	54
Joseph A. Hoegen.....	Wyoming	49
James M. Howe.....	Hillsboro	73
Harry D. Kelly.....	Council Bluffs	60
Fred E. Koch.....	Burlington	65
Henry H. W. Kruse.....	Rockford	52
John W. Laird.....	Mt. Pleasant	71
Robert M. Lapsley.....	Keokuk	72
George T. McMahon.....	Waukeee	82
Nelson Merrill.....	Marshalltown	80
Ralph E. Munden.....	Cedar Rapids	56
Frank Neufeld.....	Davenport	68
Mark A. Newland.....	Center Point	73
George C. Oldag.....	Paullina	64
Thomas J. O'Toole.....	Eagle Grove	72
Marion W. Rogers.....	Leon	67
John L. Seabloom.....	Red Oak	70
Amos G. Shellito.....	Independence	82
Elmer E. Sherman.....	Keosauqua	81
Charles T. Slavin.....	Moravia	71
Frank S. Smith.....	Nevada	90
George H. Sollenbarger.....	Corydon	72
William E. Sperow.....	Carlisle	73
Franklin A. Stevens.....	Belmond	79
Zella W. Stewart.....	Iowa City	65
Eugene F. Talbott.....	Grinnell	69
Charles W. Tidball.....	Independence	55
Benjamin S. Walker.....	Corydon	70
Evon Walker.....	Ottumwa	65
Charles E. Wallace.....	New Sharon	85
William R. Whiteis.....	Iowa City	74

James G. Macrae, Secretary of the Council

## REPORT OF THE PUBLICATION COMMITTEE

It is the consensus of the Publication Committee that the twelve monthly issues of the Journal of the Iowa State Medical Society constitute a detailed report of the Committee's activities during 1943. The war occasioned some changes in the regular routine of publishing each issue; yet it did not become necessary to make any vital alteration in the Journal. Fewer scientific articles were published, which can be accounted for by the fact that less material was submitted for publication and, also, that it was necessary to conserve on the amount of paper stock consumed.

An innovation of the year was the publication of an Iowa City issue in April. The entire issue was

devoted to the College of Medicine and all material was submitted by members of the faculty. This was an excellent issue and the Committee is indeed grateful to the College for its splendid contribution.

The problem of obtaining correct mailing addresses became more difficult during the year with more men in military service and the frequent changes made in their location. The Committee believes that the time and effort spent on this phase of the work is well worthwhile, however, since many of the men expressed their pleasure in receiving the Journal while so far away from home. Mention should also be made of the Roster of Iowa Physicians in Military Service, which was a monthly feature during 1943 and which reports indicate was of considerable interest to the physicians at home and abroad.

The accompanying table sets forth figures on the comparative cost of the Journal during the last three years.

	1941	1942	1943
Reading Pages.....	618	588	586
Advertising Pages.....	318	328	330
Percentage of Reading Pages.....	66.0%	64.2%	63.9%
Original Articles.....	87	89	76
Editorials.....	59	68	55
Total Journal Expenditures.....	\$11,868.94	\$12,824.17	\$12,889.49
Total Journal Income.....	7,926.35	8,786.50	9,838.37
Net Expenditure for Journal.....	\$ 3,942.59	\$ 4,037.67	\$ 3,051.12
No. of State Society Members.....	2,478	2,490	2,471
Net Expenditure per Member.....	\$ 1.59	\$ 1.62	\$ 1.23

It will be seen that the total Journal expenditures for 1943 remained approximately the same, and that the total income was approximately \$1,000.00 greater, thus making the net expenditure for the Journal \$1,000.00 less than that of 1942. The number of members remained substantially the same and the net expenditure per member amounted to \$1.23, a figure somewhat less than that of the preceding year. The increase in income is due to additional advertising contracts secured by the Co-operative Medical Advertising Bureau of Chicago. The Bureau is to be highly commended for its successful efforts on behalf of the various state medical journals. The committee wishes to emphasize, however, that the continuation of these advertising contracts is dependent upon the response made by the doctors in Iowa. Many of these firms offer literature or samples as a test of reader interest; and may we ask that you as a delegate convey to the members of your society the importance of patronizing these advertisers and writing them for any literature or samples offered?

Every effort is being made to retain the high standards of quality of the Journal during these critical times and to increase its value to the Society. In order to accomplish this we need the co-operation of all members and earnestly solicit your suggestions and your continued support.

Lee Forrest Hill, Editor

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

The following report of the activities of your Committee on Public Policy and Legislation is respectfully submitted:

*Iowa Interprofessional Association.* At the 1943 annual meeting of the Iowa Interprofessional Association, Dr. A. L. Jenks, one of the members of our Committee on Public Policy and Legislation, was elected to the Executive Council of the Iowa Interprofessional Association. The Interprofessional Association decided to take an active part in opposing the Wagner-Murray-Dingell bill and for this purpose appointed a steering committee, of which Dr. Jenks is a member. The steering committee has had several meetings and it has organized 21 local committees to correspond with the 21 districts of the Iowa Pharmaceutical Association. Each of these local committees is to have a representative from each of the component groups of the Iowa Interprofessional Association. This steering committee has also prepared a "speaker's kit" consisting of a summary of the Wagner-Murray-Dingell bill which can be read before any group in approximately twenty minutes. It was also planned to include in this "speaker's kit" an outline of this particular summary, in case an individual wishes to speak from an outline instead of reading a prepared paper, and some leaflets and other material available at the present time.

*National Legislation.* Federal legislation has required an unusual amount of attention during the past year. To print the list of bills introduced into Congress affecting the medical profession would require far more space than is allocated for this report. Three, however, deserve special mention:

1. H. R. 2935, dealing with obstetric care for wives of service men. This became the law last summer. The medical profession of the state should, by now, be familiar with the law. The Iowa State Medical Society has done an outstanding job in expressing the opinion of its members concerning the provisions of the law. Seven of our Congressmen opposed the bill; one favored it. Neither Senator voted on the controversial Judd amendment.
2. The Barden-LaFollette Vocational Rehabilitation Act (Public Law 113). This vast rehabilitation program is under the supervision of the Federal Security Agency. Its administrator has appointed a National Rehabilitation Advisory Council, about one-third of whose members are physicians. Broadly stated, the recently enacted law contemplates a continuation on an expanded basis of the general pattern of a federal-state program for civilian vocational rehabilitation that has been functioning since 1920. Much alarm has been expressed concerning the far-reaching effect this will have in postwar planning.
3. The Wagner-Murray-Dingell Bill. A statewide program has been set up to oppose this measure. It is conceded that this bill will not become a law



in the present Congress, but every physician in the state of Iowa should make it his personal business to inform his community of the dangers of socialization of the entire nation contained in the provisions of the bill. We bespeak your continued cooperation in our efforts. Every physician is busy, is doing double duty, but he or she must take time out to fight to preserve the American plan of medical care.

*National Physicians Committee.* The trustees of this organization have apparently given careful consideration to the criticisms offered by various state groups and they are now concentrating their efforts on a general educational plan both for physicians and the public. Facts they present are based upon extensive surveys made by recognized experts. Millions of copies of these surveys have been distributed and we are informed that the reaction upon public opinion has been very gratifying to the officials of the American Medical Association.

*The North Central Conference.* The direct result of the efforts of this organization last year was the creation of the Council on Medical Service and Public Relations of the American Medical Association. This Council was given the power to establish a Washington office, but up to the present time has not seen fit to do so. Because of this fact, the North Central Conference offered a resolution to the 1944 National Conference on Medical Service requesting that the Council on Medical Service and Public Relations immediately establish a Washington office. This resolution was, in turn, incorporated into the resolutions passed by the National Conference on Medical Service and will be presented to the House of Delegates of the American Medical Association.

The American Dental Association and the American Hospital Association have established Washington offices. So, too, have the cults established elaborate and well financed headquarters in Washington. They have found it less expensive, and more effective, to accomplish their legislative objectives by dealing with Congress rather than by fighting it out in the several states.

Since the establishment of the North Central Con-

ference three other important groups have been formed. In the west, six states have organized, levied a per capita tax, and on March 15, established a Washington Bureau of Information. Six New England medical societies have organized, primarily for the purpose of fighting the Wagner-Murray-Dingell program. Lake County, Indiana, proposes a national organization for furthering the economic and legislative programs of American medicine. The combined efforts of these various groups will be interesting to watch. It is safe to predict, however, that some form or type of unified Washington office will be the result, and we sincerely trust that it will be under the direction of the Council on Medical Service and Public Relations.

*State Legislation.* Previous to the special session of the state legislature which was convened in January, 1944, for the purpose of passing legislation enabling absent soldiers to vote, the question arose as to the advisability of the State Medical Society's having introduced into the special session legislation which would enable the incorporation of medical practice for nonprofit purposes. Your Committee, upon contacting political leaders in the state, discovered that any bills introduced into this special session other than the bill to permit soldiers to vote, would be frowned upon. Therefore, no attempt was made to introduce such an enabling act into the 1944 special session of the state legislature.

Furthermore, the Executive Council of the Iowa State Medical Society, on October 9, 1942, unanimously voted to postpone introduction of any such enabling act for the duration of the war. For this reason, if the Society as a whole wishes the Legislative Committee to prepare and have introduced into the coming session of legislature any enabling act, the Legislative Committee believes that the House of Delegates of the Iowa State Medical Society at its 1944 state meeting should formally vote such direction to the Legislative Committee.

John W. Billingsley, Chairman  
L. A. Coffin  
A. L. Jenks, Jr.  
Lee R. Woodward  
Robert L. Parker

## Reports of Special Committees

### REPORT OF THE BALDRIDGE-BEYE MEMORIAL COMMITTEE

There have been no papers submitted in competition for the Baldridge-Beye Memorial prize.

W. M. Fowler, Chairman

### REPORT OF THE HISTORICAL COMMITTEE

The Historical Committee during the past year has been able to add several interesting local medical histories, particularly the history of medicine in Woodbury County by Dr. William Jepson.

Acknowledgment is due the efficient secretary, Dr. Henry G. Langworthy of Dubuque, for his work.

There are still a number of counties in Iowa of which there is no complete medical history on record, and the members of the Society are urged to assist in completing this historical material as rapidly as possible.

Walter L. Bierring, Chairman  
Henry G. Langworthy, Secretary  
Murdoch Bannister  
John T. McClintock  
Frank E. Sampson

### REPORT OF THE COMMITTEE ON MATERNAL AND CHILD HEALTH

The main problem confronting the Committee on Maternal and Child Health in 1943 was the Emer-

gency Maternity and Infant Care (EMIC) program of the Children's Bureau. Up until the time of the annual meeting last year, the aid to service men's wives was being given at the University Hospital. However, on March 18, 1943, Congress passed and the President approved an act providing medical and hospital maternity and infant care for wives and infants of enlisted men in the four lowest grades of service. This was to be administered by the Children's Bureau through the state departments of health.

Your Committee held a meeting on the first day of the annual meeting last year and considered the whole program. We were very dubious about it, and would have liked to turn it down, but it seemed impossible to do so. The final outcome was that we went to the House of Delegates with a statement of the program, four objections we found to it, four reasons we thought it should be accepted, and the recommendation that the plan be accepted so that the medical profession might have some voice in its direction. The House of Delegates approved of that recommendation.

However, when the plan was finally put into operation, definite drawbacks appeared and the Committee met again October 17. At this time the whole program was discussed very vigorously. The outcome of this meeting was a resolution outlining our objections to the program and its restrictions and advocating that we cease cooperation after January 1, 1944, if the Children's Bureau did not remove the objectionable clause regarding fees. Following this committee meeting, members of the Committee appeared at each of the president's meetings held in November, explained the program and the resolution, and asked the sentiment of the group. In all instances the medical men were in full agreement that the wives and infants of service men should have the care they needed, but they objected to the restrictions of the EMIC program and in many instances said they would prefer to give service free rather than under the present plan.

During the fall months the Children's Bureau had several meetings with its Advisory Council and other groups, but the viewpoints of the practicing physicians did not seem to impress them or make them see the need for change.

Finally, on December 19, your Committee held its last meeting of the year. At that time the main topic of discussion was still the EMIC program. None of those present was resigned to it, but everyone felt the profession must continue to cooperate. The recommendations which emanated from that conference were as follows:

1. That cooperation in the program continue as at present but under protest over objectionable administrative restrictions. That it be clearly understood that such continued cooperation is based solely upon patriotic grounds and a desire on the part of the medical profession to take no action which would in any way impede the war effort.

2. That complete sympathy on the part of the med-

ical profession of Iowa be reiterated toward the effort of Congress to provide the best quality possible of obstetric and pediatric care for the wives and infants of enlisted men.

3. That every effort be made to bring about modification of administrative policies to the end that such high type medical care may be insured to the wives and infants of service men who need it.

4. That cooperation with other groups be sought so that under effective medical leadership members of Congress may be fully informed concerning the views of the medical profession for their guidance in acting upon legislation for subsequent appropriations for the EMIC program.

This is the present status of the program in Iowa.

Other activities of the Committee during the year included the immunization program, which was again sponsored but given no active support because it seems to go forward under its own momentum.

The Planned Parenthood League of Iowa asked the support of the medical profession, and the Committee, after studying the facts of the case, passed the following resolution at its meeting December 19.

*Be It Resolved:* That definite medical indications exist for the giving of child-spacing information and that this information should be furnished only by physicians; and

*Be It Further Resolved:* That the Iowa State Medical Society go on record as approving the giving of child-spacing information by or under the direct supervision of competent physicians whenever in their opinion indicated.

Your Committee asks your support of the above resolution.

H. E. Farnsworth, Chairman  
E. D. Plass  
Lee F. Hill  
R. H. McBride  
H. A. Weis  
C. P. Phillips  
J. F. Gerken

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## REPORT OF THE MEDICAL LIBRARY COMMITTEE

The State Medical Library has in every way endeavored to continue serving the doctors promptly and efficiently. We have served not only the doctors on the home front but also Iowa doctors in the armed forces.

During the past year we had bound 508 volumes. This is work which the library has needed for so long that it is a source of constant joy to see the newly bound volumes come from the bindery. Scientific literature is becoming more valuable and its preservation is a trust which must be dealt with wisely. A book unused is of no value, but a book well bound, used with ordinary care and made available to all who wish to consult it, makes for scientific progress.

During the past year we received two old diplomas and State Board licenses to practice medicine, one dated 1859 and the other 1895, to be placed in our collection. We also received a number of old medical instruments: some of which we retained in the



museum, while others, which were given to us with the understanding that the ones still usable would be turned over to the war effort, were passed on to the State Department of Health which collects them from over the state and passes them on to the proper place.

Iowa Methodist Hospital recently turned over to us three truck loads of valuable out-of-print medical books and journals which we checked over carefully; those we could use were added to our collection. The remainder has been offered to other medical libraries through the Medical Library Exchange.

Doctors from over the state have been very generous with gifts of books and journals for the library and we shall be very glad to receive in the coming year any medical literature they may wish to give us.

Pieces of literature loaned.....	12,195	
Pieces of literature consulted in library.....	6,366	
		18,561
Requests for literature.....	4,096	
Patrons served in library.....	1,864	
		5,960
Bibliographies prepared.....		8
Letters written.....	1,609	
Postal cards written.....	1,980	
		3,589
Telephone calls.....		996
Accessioned volumes in library.....		28,386
Periodicals received by paid subscription.....	190	
Periodicals received by gift subscription.....	82	
		272
Reprints.....		774
Gifts to the library:		
Journals.....	15,751	
Bound Journals.....	36	
Books.....	1,284	
Transactions.....	18	
Transactions, Reports.....	10	
Bulletins.....	2,633	
Reports.....	97	
Reprints.....	1,269	
		21,098
Gifts made to other libraries:		
Journals.....	9,925	
Books.....	793	
Bulletins.....	337	
Transactions, Reports and Proceedings.....	127	
Reprints.....	545	
Binder.....	1	
		11,728
Borrowed from Surgeon General's Library.....		
for Doctors.....	31	
Borrowed from other libraries for Doctors.....	43	

Jeannette Dean-Throckmorton, Medical Librarian

American Medical Association. The Committee has held two meetings but up until this time it has been assigned no work by the Council. However, the Committee will undoubtedly be one of the most active in the Society in the future.

R. D. Bernard, Chairman  
John A. Thorson  
Ira N. Crow  
Martin I. Olsen  
Fred Sternagel  
M. C. Hennessy

## REPORT OF THE COMMITTEE ON PROCUREMENT AND ASSIGNMENT

We are well within the third year of war and approaching the end of the fourth year since the Medical Preparedness Committee was organized to place the medical profession on the alert in preparation for war. On the whole, the medical profession of the United States in general and the profession of Iowa in particular can be justly proud of its record. So far about one-third of the state's profession is in uniform. If this condition were universal, the task of Procurement and Assignment would be a simple one. However, such is not the case. Many states have not furnished an equivalent percentage of their physicians to the services. We often allow ourselves the luxury of meditation and wonder why.

The work of Procurement and Assignment for the past year has fallen into two categories. First in importance is the 9-9-9 program. Through a compromise between the Procurement and Assignment Service and the Surgeon General's Office, the latter agreed to accept for active duty those physicians who had completed nine months' internship. In all but two states, the remaining three months will be substituted for by Army service. The basic idea in the 9-9-9 program is as follows:

All graduating medical students will be allowed a nine month's internship and during this time will receive their commissions in the Medical Officers Reserve Corps. At the end of the nine months one-third of the commissioned group will be eligible for a deferment of nine months as junior residents; the balance will be called to active duty. At the end of the second nine months, one-half of the deferred commissioned junior residents will be eligible for an additional deferment of nine months, as senior residents; the rest will be called to active duty. At the termination of the third nine months' period, this last group will be called to service. Thus, at the end of twenty-seven months, all medical graduates physically qualified, will be in service. The acceptance of the nine month service as interns applies only to those who are accepted for service. Physically disqualified interns must complete an equivalent of one year's internship. In other words, they should be encouraged to accept residencies to complete legal requirements.

The quota of interns and residents for Iowa was originally set at twenty-nine interns and thirty-one residents. The Committee was successful in raising the resident quota to thirty-nine. Of these, only

## REPORT OF THE COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS

The Committee on Medical Service and Public Relations was appointed by President L. R. Woodward at the request of the American Medical Association. It is to cooperate with the recently organized Council on Medical Service and Public Relations of the

seventeen were to be deferred commissioned men. The balance of twenty-two must be those physically disqualified and women. During their first year of service, Latin-American physicians serving as interns and residents in American hospitals will *not* be included in hospital quotas. I wish to add that the quotas were set by Procurement and Assignment Service in Washington, D. C., without consultation with State Chairmen. On February 7, 1944 we received the new quotas effective October 1, 1944. The Iowa quota is thirty-one interns and forty residents. Of the latter, sixteen may be deferred junior residents and six deferred senior residents. Deferment can be obtained only for commissioned personnel.

Latin-American physicians, on account of linguistic difficulties, can be taken on as residents and interns for one year without being included in the prescribed quotas. If, however, they can give the same service as native interns and residents, then they will be counted in the quota. Physicians discharged from the services for a physical disability may be engaged as interns and residents without being included in the quota. However, if hired, a physically fit deferred resident should be released to the services within a period of sixty days.

The second phase of Procurement and Assignment activity has to do with the relocation of physicians. We can readily understand the refusal of physicians to uproot themselves from their present locations and, in reality, start all over again. However, this is a total war and it is essential for all individuals to do their part. This is especially true of physicians under thirty-eight years of age, classified as available, but physically disqualified. There are about three or four localities in Iowa where additional medical service is desirable. Procurement and Assignment does not approve of young physicians in the group mentioned above moving to larger centers of population at the present time just to feather their nests more plentifully. The Service, at present, is powerless to prevent any moves by physicians either within or out of the state. Our procedure in such instances is to certify the physicians as available and report them to Selective Service.

Certain accusations have been made against Procurement and Assignment Service. One is that we have threatened certain young physicians who failed

to comply with requests to relocate with induction in the rank of private. This is not true. Further, we have often stated that our efforts on relocation and holding physicians to their present locations would be made easier if we had the backing of a national service law. For this we have been accused of having Fascist leanings. We do not apologize for our belief in the advantages of a national service act, but we certainly do resent being called Fascists. That issue will be decided by those who have sacrificed everything and are giving themselves and even their lives in defense of what they believe.

We trust that before many more state meetings have passed, the war will be over and we will be able to turn our efforts toward adjusting ourselves to a peacetime activity.

Thomas F. Suchomel, Consultant,  
War Manpower Commission, Procurement and  
Assignment Service for Physicians for Iowa

### REPORT OF COMMITTEE ON PUBLIC RELATIONS

Your Committee on Public Relations begs to report that at the suggestion of Mr. Charles P. Taft, Director of the Office of Community War Service, we have contacted the Iowa State Bar Association relative to delinquency problems and stand ready to advise with them on the medical aspects.

Ira Nelson Crow, Chairman

### REPORT OF THE WOMAN'S AUXILIARY ADVISORY COMMITTEE

Under the able leadership of Mrs. W. S. Reiley, the Woman's Auxiliary marches onward. During the past year fewer meetings both by the medical profession and the Auxiliary have been held, but the spirit of coordination still prevails. All auxiliaries and their members are devoting much time to the Red Cross, Home Nursing, the Women's Field Army, the equipping of soldiers' hospitals and the USO centers. The literature sent out and the articles appearing in the Journal have enabled every member of the organization to become familiar with the perils and pitfalls of the Wagner-Murray bill. The need of *Hygeia* has been stressed; it should appear in every community reading room, hospital, college, high school and in every doctor's and dentist's reception room.

Edward A. Hanske, Chairman

## Reports of Committees of the Council

### REPORT OF THE EXECUTIVE CANCER COMMITTEE

The first meeting of the Executive Cancer Committee was held with the Executive Board of the Iowa Division of the Women's Field Army at the Hotel Fort Des Moines in Des Moines April 29, 1943. Dr. Hill presided, and Mrs. O'Brien spoke, offering her resignation as Commander of the Women's Field Army and suggesting that a new Commander be appointed, preferably from Des Moines.

Dr. Morgan, speaking for the Executive Board of the Women's Field Army, told of the various difficulties and misunderstandings with the American Society for the Control of Cancer, and raised the question as to whether the Cancer Committee should continue to maintain relationship with the national organization.

Dr. McNamara, Iowa representative of the American Society for the Control of Cancer, said the chief difficulty with the national organization has arisen



from its need of money. He spoke at some length of the definite *decrease* in cancer deaths in counties where the program of lay education has been developed, and the *increase* in cancer deaths in counties and districts where the Women's Field Army has not been active. He urged continued expansion of the educational program.

Dr. Erskine, speaking for the Executive Cancer Committee, urged continued cooperation with the American Society for the Control of Cancer.

Dr. Zimmerer, speaking for the State Department of Health, said that there is a lack of coordination between the different organizations, including the State Medical Society, the Women's Field Army, and the Cancer Division of the State Department of Health. He urged continued relationship with the American Society for the Control of Cancer.

A motion was then carried that educational work in cancer, both lay and professional, be continued along the general lines outlined by Dr. Morgan and that, if possible, the Society should continue to cooperate with the American Society for the Control of Cancer. It was also voted to ask the trustees to authorize a revision of the cancer manual under the direction of the Executive Cancer Committee. It was explained that the manual is prepared by the Cancer Committee, and that the State Department of Health issues a lay manual and the Women's Field Army publishes a cancer bulletin.

The second meeting of the Executive Cancer Committee was held in Iowa City August 6, 1943. At this time there was a long discussion about a Commander for the Iowa Division of the Women's Field Army. Mrs. O'Brien insisted that her resignation be accepted.

Other action taken at this meeting was the appointment of Doctors James C. Hill, E. D. Plass, F. P. McNamara, and H. W. Morgan as medical members of the Executive Board of the Women's Field Army, Iowa Division. The secretary of the Cancer Manual Committee was instructed to ask the Board of Trustees to authorize the expense of revising the Iowa Cancer Manual, and the personnel of the Cancer Manual Committee (as well as the Lay Manual Committee) was listed as follows: Doctors H. W. Morgan, chairman; A. W. Erskine, secretary; E. D. Plass, F. P. McNamara, and E. G. Zimmerer.

The third meeting of the Committee was held in conjunction with the Executive Board of the Women's Field Army in Iowa City January 22, 1944. At this meeting Mrs. O'Brien's resignation was accepted. The 1944 campaign was discussed at length. Mrs. O'Brien explained the plan of the national organization which was to send letters, with books of stickers, for which the recipients remit \$1.00 or more. It was voted to approve of this plan. It was also voted that the Committee should solicit the doctors of the state and Dr. McNamara was appointed to write a special letter of appeal.

The Committee discussed the problem of finding a successor to Mrs. O'Brien at length. Dr. Zimmerer was elected to membership on the Executive Board

of the Women's Field Army; and it was voted to send Mrs. Allen Sigman and one other woman from Dubuque to the Chicago area meeting February 9 and 10 at the expense of the Iowa Division of the Women's Field Army. The treasurer was instructed to advance expense money to Mrs. Sigman.

The reports of these three meetings show what is being done by the Cancer Committee. The educational program directed toward the dissemination of information to lay groups continues through the activities of the Women's Field Army. This costs money, and the individual members of the Iowa State Medical Society are requested to assist in a material way. The cancer educational program has merit and should have the active cooperation of our membership.

James C. Hill, Chairman

#### REPORT OF THE SPEAKERS BUREAU COMMITTEE

To the Members of the Council:

During the past year the activities of the Speakers Bureau were greatly curtailed, but in spite of the complications encountered, many good meetings were conducted throughout the state.

One of the outstanding features of the Bureau's work in 1943 was the series of president's meetings at which either the president or one of the past presidents of the State Society was the presiding chairman. Host cities to these meetings were Red Oak, Fairfield, Boone, Sheldon, West Union, Algona, Denison, Toledo, Osceola, and Monticello. Members of the State Society presented valuable discussions of the Wagner-Murray bill, the American Medical Association's Council on Medical Service and Public Relations, the National Physicians Committee, the Federal Program for Emergency Maternal and Infant Care, and the Old Age Assistance program. In addition to these legislative and economic discussions, scientific talks were given on vitamin therapy and recent developments in the use of sulfonamides. We deeply appreciate the cooperation of the speakers, the local chairmen, and the many others who made these programs successful and highly worthwhile.

Forty-four meetings of county medical societies were arranged under the auspices of the Bureau. At many of these meetings members of the local organizations gave short papers or discussions which were supplemented by scientific films. Speakers and scientific recorded lectures comprised the programs of other county medical society meetings.

Nine lay organizations availed themselves of the Bureau's services to procure speakers during the past year. The Wagner-Murray bill was the topic of discussion requested by several of these groups.

As usual weekly radio broadcasts were presented by physicians of the State Society over stations WOI in Ames and WSUI in Iowa City, and the excellence of the manuscripts submitted is worthy of mention. Upon request 1,338 copies of the talks were mailed

to our radio listeners in Iowa and surrounding states. Spot announcements concerning smallpox were given prior to each address in an effort to emphasize the value of vaccination. On our broadcast over station WOI the medical talks were embodied in a program of fine transcribed organ music which, we believe, has enhanced our broadcast and increased the size of our audience.

The 1943 financial report of the Speakers Bureau is given in detail and is followed by the account of the entire period of the Bureau's existence.

#### Account for 1943

##### Income

Receipts from County Medical Society Programs .....	\$160.00
Total Speakers Bureau Income.....	\$160.00

##### Expenditures

Travel Expense of Speakers.....	\$180.87
Radio .....	373.75
County Society Services.....	73.87
Telephone, Postage, Stationery, Etc.....	90.11
Total Speakers Bureau Expenditures.....	\$718.60
Deficit for 1943.....	558.60
Funds Received from Iowa State Medical Society to Offset Deficit.....	558.60

#### Account 1930 Through 1943

Year	Disbursements	Receipts	Deficit
1930.....	\$ 306.26	\$ 2,780.00	\$ 2,473.74*
1931.....	3,949.97	3,939.34	10.63
1932.....	5,855.70	2,805.58	3,050.12
1933.....	3,744.06	3,650.70	93.36
1934.....	4,316.30	4,350.90	34.60*
1935.....	5,435.56	5,151.97	283.59
1936.....	4,360.13	3,431.03	929.10
1937.....	5,741.55	3,042.24	2,699.31
1938.....	5,493.99	3,806.42	1,687.57
1939.....	4,427.95	1,766.75	2,661.20
1940.....	4,376.53	3,384.31	992.22
1941.....	4,941.55	2,211.00	2,730.55
1942.....	2,948.27	1,108.76	1,839.51
1943.....	718.60	160.00	558.60
Total.....	\$56,166.42	\$41,589.00	\$15,027.42

(\*) Balance instead of Deficit.

The preceding report of our activities is given only to depict the efforts of the Bureau during 1943. We cannot show the sacrifices of time and energy which many of the physicians have so willingly made to maintain our organization, but we sincerely wish to express our appreciation of their earnest endeavor.

Joseph B. Priestley, Chairman  
Thomas F. Hersch  
Walter R. Brock  
James Dunn

#### REPORT OF THE COMMITTEE ON INDUSTRIAL HEALTH

The State Department of Health reports the five point program instituted last year is working out rather successfully, particularly in the small plant industry.

Your Committee wishes to emphasize to those physicians doing part time industrial work, and particularly to those doing compensation work for small

plant industries, that whenever possible they should make a survey with the plant management so that they may be able to suggest improvements in plant sanitation, ventilation, and accident prevention. The physician may be of great help in suggesting preventive measures which will decrease the man hours lost through accidents or occupational hazards.

It was indeed gratifying to learn, at the annual Industrial Health meeting of the American Medical Association held in Chicago February 15 and 16, 1944, that a number of state chairmen on Industrial Health have followed the Iowa plan of refresher courses on industrial health, reporting excellent attendance.

James E. Reeder, Chairman  
C. H. Cretzmeyer  
J. G. Macrae

#### REPORT OF THE TUBERCULOSIS COMMITTEE

Due to conditions caused by the war it was impossible to hold meetings of the Tuberculosis Committee this year. Through correspondence and personal contacts the Committee has endeavored to continue its support to all other organizations interested in the prevention and treatment of tuberculosis.

J. Carl Painter, Chairman

#### REPORT OF THE IOWA DIVISION, WOMEN'S FIELD ARMY

The annual report of the Iowa Division of the Women's Field Army for the Control of Cancer will differ from previous years due to the fact that no attempt was made to carry on an active campaign. Having tendered my resignation as State Commander, I promised that until my successor was appointed I would be responsible for the 1943 "Mail Campaign" only. After viewing the report below you will agree that it was not a success.

County	Campaign Funds
<b>DISTRICT NO. 1</b>	
Allamakee .....	\$ 1.00
Bremer .....	3.00
Clayton .....	1.00
Floyd .....	13.00
Mitchell .....	64.40
Winneshek .....	1.00
Total .....	\$ 83.40
<b>DISTRICT NO. 2</b>	
Butler .....	\$ 19.00
Cerro Gordo .....	22.50
Franklin .....	1.50
Hancock .....	12.00
Kossuth .....	2.00
Winnebago .....	1.00
Worth .....	68.00
Wright .....	2.00
Total .....	\$ 128.00

<b>DISTRICT NO. 3</b>	
Clay .....	\$ 34.60
Dickinson .....	11.30
Emmet .....	2.00
Lyon .....	22.15
O'Brien .....	28.70
*Osceola .....	144.80
Pocahontas .....	74.03
Sioux County by Towns—	
Hawarden .....	118.41
Orange City .....	5.00
Alton .....	1.00
Total .....	\$ 441.99



County	Campaign Funds
<b>DISTRICT NO. 4</b>	
Buena Vista .....	\$ 95.00
Carroll .....	1.00
Cherokee .....	4.00
Crawford .....	2.00
Plymouth .....	82.80
Sac .....	7.00
Woodbury .....	38.00
Total .....	\$ 229.80
<b>DISTRICT NO. 5</b>	
Dallas .....	\$ 3.00
Polk .....	8.00
Webster .....	2.50
Total .....	\$ 13.50
<b>DISTRICT NO. 6</b>	
Hardin .....	\$ 1.00
Jasper .....	1.00
Marshall .....	11.60
Tama .....	1.00
Total .....	\$ 14.60
<b>DISTRICT NO. 7</b>	
Cedar .....	\$ 12.50
Clinton .....	2.00
***Dubuque .....	709.55
Johnson .....	179.41
Jones .....	2.00
Linn .....	59.00
Total .....	\$ 964.46
<b>DISTRICT NO. 8</b>	
Des Moines .....	\$ 2.00
Lee .....	6.00
Van Buren .....	8.15
Washington .....	21.25
Total .....	\$ 37.40
<b>DISTRICT NO. 9</b>	
Monroe .....	\$ 4.00
<b>DISTRICT NO. 10</b>	
Clarke .....	\$ 1.00
Taylor .....	1.00
Warren .....	16.25
Total .....	\$ 18.25
<b>DISTRICT NO. 11</b>	
Cass .....	\$ 4.00
Fremont .....	8.00
Montgomery .....	4.00
Page .....	1.00
Pottawattamie .....	26.00
Total .....	\$ 43.00
Total for 1943 .....	\$1,978.40

The report of the public accountant who audited the books September 30, 1943, is herewith submitted.

#### ANNUAL FINANCIAL REPORT From January 1, 1943, to January 1, 1944

Balance in Council Bluffs Savings Bank, January 1, 1943 \$1,517.51

#### RECEIPTS

Memorial Fund contributions.....	\$ 350.00
Tag Day sales .....	229.15
Address Label sale.....	194.26
Enlistments .....	1,054.00
Contributions .....	150.99
Mrs. McCabe refund.....	15.60
Total .....	\$1,994.00

\$3,511.51

#### EXPENSES

Thirty per cent to National.....	\$ 316.19
Organization and campaign.....	146.90
Stenographic help .....	234.45
Postage and express.....	66.58
Office expense .....	52.66
Telephone and telegraph.....	143.17
Printing .....	20.93
Bulletins .....	1,445.98
Exhibits .....	9.51
Miscellaneous .....	46.05
Total .....	\$2,482.42

Balance in Council Bluffs Savings Bank, January 1, 1944 .....

Council Bluffs, Iowa, November 9, 1943.

Board of Directors,  
Women's Field Army—Iowa Division  
American Society for Control of Cancer

At the request of Mr. B. A. Gronstal, Treasurer, audit of the transactions of your organization for the period from January 1, 1942, to September 30, 1943, has been completed.

The following Exhibit and Schedule reflect the results of such transactions:

#### Index

Exhibit I Statement Transactions January 1, 1942, to September 30, 1943.

Schedule I-A Bank Reconciliation.

All checks were followed to entries in your original book of entry and all footings therein verified. Also found deposits in agreement with those recorded by the bank.

Your books were carefully kept and in balance with the bank account, with the exception of a few items of exchange, etc., which no doubt the bank had neglected to report to those in charge of your books. These entries have now been made and your books are in perfect balance with your bank account.

I thank you for the privilege of again making this audit and my sincere good wishes go with this to your organization.

Very truly yours,

Dora E. Ellis, Registered Accountant.

#### WOMEN'S FIELD ARMY—IOWA DIVISION American Society for Control of Cancer

#### STATEMENT OF TRANSACTIONS

Period January 1, 1942, to September 30, 1943

Balance in Council Bluffs Savings Bank January 1, 1942	\$3,438.38	Exhibit I
Total receipts for period.....	5,334.15	
	\$8,772.53	

#### EXPENDITURES

Organization campaign .....	\$ 729.16
Office help .....	549.00
Postage and supplies.....	246.83
Office supplies .....	145.93
Telephone and telegraph.....	259.35
To National organization.....	611.09
Pamphlets .....	897.88
Bulletins .....	2,642.22
Memorial fund .....	1,020.00
Exhibits .....	275.23
Miscellaneous expense .....	56.90
	\$7,433.59

Balance Council Bluffs Savings Bank, September 30, 1943 .....

#### BANK RECONCILEMENT

Council Bluffs Savings Bank outstanding checks.

Schedule I-A

Number	Amount
618 .....	\$11.33
619 .....	4.21
620 .....	.75
621 .....	5.00
622 .....	.99
623 .....	59.87
	\$ 82.15

Balance as per books.....

Balance as per bank statement September 30, 1943.....

#### MEMORIAL FUND

November 24, 1943.

Since completing audit of the accounts of the Women's Field Army—Iowa Division of the American Society for Control of

Cancer, Mr. A. B. Gronstal requested that I also audit the accounts of The Memorial Fund. This I have done with the following result:

In the Memorial Fund Safety Box in the Council Bluffs Savings Bank, Council Bluffs, Iowa, I find two bonds as follows:

60096-F-2½, 64-69.....	\$1,000.00
Interest thereon time of purchase..	11.03 \$1,011.03
20138-J-2, 49-51 .....	500.00

Total in bonds.....	\$1,511.03
Balance as of September 30, 1943, in Council Bluffs Savings Bank .....	220.47

Total in Memorial Fund, September 30, 1943.....	\$1,731.50
Total in Memorial Fund as per books on January 1, 1942.....	\$ 711.50
Transferred thereto January 1, 1942, to September 30, 1943, as per report.....	1,020.00

Total as per books September 30, 1943.....	\$1,731.50
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Kindly attach to report rendered November 9, 1943.  
Very truly yours,  
Dora E. Ellis, Public Accountant.

In conclusion I would like to mention the fact that the Iowa Cancer Bulletin is mailed to every doctor in Iowa at quarterly intervals. At the close of the 1943 campaign seventy-four (74) doctors contributed to the "Mail Campaign." The appeal mentioned in every issue reads as follows:

#### Will You Help Control Cancer in Iowa?

Because of the poor results of last year's campaign for funds to carry on the cancer educational program we are appealing to every reader of the Bulletin who has not enlisted to send in an enlistment fee of \$1.00. Please fill out the enlistment blank below and make checks payable to B. A. Gronstal, Treasurer. Your contribution will be credited to the county of which you are a resident.

(Tear on this line and mail)

To MRS. ARTHUR V. O'BRIEN, COMMANDER

Iowa Division, Women's Field Army

904 Bowery Street

Iowa City, Iowa

I appreciate the need for the educational program of the Iowa Division of the Women's Field Army.

I am pleased to enlist in your army to *Fight Cancer with Knowledge*.

Enclosed please find \$..... as my enlistment contribution.

Name .....

Address .....

City..... County..... Date.....

Your contribution will be acknowledged by return mail.

In leaving the Women's Field Army for the Control of Cancer as Commander, I wish to express my appreciation to the members of the Cancer Committee and the Executive Committee of the Women's Field Army for the Control of Cancer for their generous cooperation. I also wish to thank Miss Mary McCord, Executive Secretary of the State Medical Society, for her kind help; Dr. Edmund G. Zimmerer, Director of the Division of Cancer Control for the State Department of Health, for his splendid work, and Mr. William H. Schultz, Director of Public Relations for the State Department of Health, for the many years of publicity service and other assistance.

Respectfully submitted,

Mrs. Arthur V. O'Brien

The Speaker: The report of the Secretary.

The Secretary: No further supplementary report, Mr. Speaker.

The Speaker: The report of the Treasurer. (Absent) The report of the Board of Trustees.

Dr. Fay: No further report.

The Speaker: The report of the Chairman of the Council.

Dr. Macrae: No further report.

The Speaker: Report of the Delegates to the American Medical Association.

Dr. Bernard: No further report.

The Speaker: Report of the Committee on Constitution and By-Laws.

Dr. Henkin: I have a brief, supplementary report. In Section 2 of Chapter III, in line 13 of this section, omit the word "three" and substitute therefor the words "two or more." This refers to the candidates for President-Elect. The effect of this amendment to the By-Laws would be that, whereas now it is obligatory that there be three candidates for President-Elect, under the amendment it would be possible to have three if the House of Delegates so desired, but only two would be necessary. I move the adoption of this amendment.

The Speaker: We do not vote on this tonight, but it lays over until the Friday session.

Dr. Henkin: That is right.

The Speaker: Report of the Committee on Finance.

Dr. McClure: No further report.

The Speaker: Medical Economics.

Dr. Maxwell: Mr. Speaker, there are two matters of unfinished business in the Economics Committee, neither one of which the committee has had opportunity to act upon; they are brought before the House of Delegates for your information. Both deal with insurance. The Medical Economics Committee is working on the question of prepayment medical and surgical benefit plans. As far as we know, the plan started in Woodbury County is the only one so far started in the state, and it is proceeding under the approval granted by the House of Delegates in 1938. Resolutions have been adopted by Polk County for a state-wide prepayment medical plan.

The other is the proposition for group health and accident insurance for members of the State Medical Society. This is a plan under which group insurance may be written on all members up to seventy years of age, provided 50 per cent of them enroll.

The Speaker: The report of the Committee on Medical Education and Hospitals.

Dr. Caughlan: No report.

The Speaker: Report of the Committee on Medicolegal Problems. (Absent) Committee on Publication.

Dr. Hill: I want to make my annual plea because there may be some new delegates in the House; that is, when you go back home, will you please, at the first meeting of your county medical society, call



the attention of the membership to the advertising in the JOURNAL. There are coupons in the advertisements in the JOURNAL. Ask the men to cut those out once in a while, sign their names and send them in to the advertisers.

We have had one concern remove its advertising from our pages, stating that in the years it had advertised with us, no coupons had been received from our membership. That company felt it was not worthwhile to advertise in our JOURNAL. So if you will, please, ask your members to look through the ads, cut out a coupon, and send it to the advertiser. Advertising is the thing which keeps our JOURNAL going. It helps us all financially. We accept only advertisements of Council approved products in the JOURNAL. One can be sure the companies are in good standing.

I should also like to call your attention to the last issue of the JOURNAL which was another all-Iowa City number. Those of us on the Publication Committee are particularly happy to have this special issue for the second time and hope this practice may be continued.

The Speaker: We shall now have the report of the Committee on Necrology.

The Secretary: Will the House stand in memoriam while I read the names at the request of the Secretary of the Council?

The members arose and remained standing while Secretary Parker read the list of deceased members.

The Speaker: We shall now have the report of the Committee on Public Policy and Legislation.

Dr. Billingsley: Mr. Speaker, there is no further report at the present time.

The Speaker: Report of the Fracture Committee. (Absent) Report of the Historical Committee.

Dr. Bierring: No further report.

The Speaker: The report of the Committee on Maternal and Child Health.

Dr. Farnsworth: No further report at this time, but we ask the opportunity to report at the Friday morning session.

The Speaker: The report of the Medical Library Committee. (Absent) Report of Military Affairs Committee. (Absent) Report of Committee on Public Relations. (Absent) Report of Committee on Scientific Exhibits.

Dr. Overton: Mr. Speaker, there is no further report this year and there is no report incorporated in the Handbook, because, as you know, there were no scientific exhibits last year. We do have one this year, however.

At the proper time and place I should like to have approval to follow the policy we started two years ago of having a special committee appointed to examine the exhibits and award Certificates of Merit to the three outstanding exhibits. We started this in 1942, and I think it has worked out very well.

The Speaker: You did not make that as a motion?

Dr. Overton: If this is the time for it, I should like to make that in the form of a motion.

The Speaker: Yes, go ahead and make your motion.

Dr. Overton: I move that the Chair be authorized to appoint a committee to study and examine the scientific exhibits and award Certificates of Merit to the three outstanding exhibits.

*The motion was seconded, put to a vote, and carried.*

The Speaker: Report of the Woman's Auxiliary Advisory Committee. (Absent) Report of the Cancer Committee. (Absent) Report of the Committee on Tuberculosis.

Dr. Painter: No further report.

The Speaker: Report of the Speakers Bureau. (Absent) Report of the Committee on Industrial Health.

Dr. Reeder: No further report.

The Speaker: Report of the Medical Service and Public Relations Committee.

Dr. Bernard: This report would not be complete without an expression of the great loss this Society suffered in the death of Willis O'Brien. Mr. O'Brien should be given credit for much of the success of our legislative efforts, including the enactment of the basic science, premarital and prenatal laws. He was held in high esteem by state officials as well as members of the Legislature, including the third house, and was recognized as the State's authority on laws pertaining to health. We respectfully suggest that the President appoint a committee of three to express suitably to Mrs. O'Brien, in any manner they may see fit, the loss which this Society has sustained and its sincere sympathy.

An office of information under the direction of the Council on Medical Service and Public Relations has been established in Washington, D. C. I move the acceptance of this report.

*The motion was regularly seconded, put to a vote, and carried.*

Dr. Bernard: Our Committee on Medical Service and Public Relations was appointed by President Woodward at the request of the Council on Medical Service and Public Relations. Its function is to cooperate on a state-wide basis with the Council. President Woodward requested this committee to conduct the state fight against the Wagner Bill. In addition to the above duties, the committee has been handling all federal legislative problems that have been referred to the state.

Time will not permit a detailed report on all of the bills introduced into Congress that affect the medical profession. The maternal and child health program is in a chaotic condition. A hearing before a subcommittee of the House Committee on Appropriations is scheduled for April 27 in Washington to suggest certain changes in this program. Wisconsin, Minnesota, California, New York and other states are sending delegates to appear at this hearing. The American Medical Association will be represented by Dr. W. W. Bauer.

*The Wagner Bill:* The Wagner Bill is being rewritten. We have a chance to educate the public before it appears in Congress, but every doctor must do his share. As you are aware, we appointed a district chairman in each Congressional district.

These men in turn were asked to contact men in their counties and give them any assistance needed. Contacting lay groups was especially urged, as well as talks before county medical societies and dinner clubs. We assembled a book containing essential information: an analysis of the Wagner Bill and much valuable information from lay sources. This book is available to all members of the Society through these district chairmen or the Des Moines office. In addition, we have procured 500 copies of the American Bar Association report. Be sure and supply yourself with as many copies of the report as you may need.

*The NPC:* Mr. Gallup concluded from a poll he conducted last summer that this country was ready for socialized medicine. A careful analysis of this poll shows definitely that his conclusion was erroneous. Mr. Altmeyer and others connected with the Social Security Board gave this poll great publicity. To offset this publicity and present the true facts, the NPC (with the blessing of the American Medical Association) instituted a nationwide poll covering the details of socialized medicine. The results of this poll are available to you now. Do not neglect to take several copies home with you. The NPC has the moral support of the American Medical Association and we should support its efforts.

Last year you were very courteous and voted unanimously on resolutions which I brought back from the North Central Conference. This conference report was presented at the National Conference on Medical Service in February, 1943, was adopted, and then presented to the House of Delegates of the American Medical Association in June. After a lengthy conference, as the two other delegates will tell you, the resolution was adopted, but not in its entirety. They gave us the Council without the Washington office.

This year, however, the North Central Conference adopted another resolution which was presented to the meeting in February, in which it asked for a Washington office. The thing that probably brought it to a head was a group of states in the west, originally eleven but now six in number, which had amassed a large amount of money. They taxed each member, I am told, about \$3.00, and on the fifteenth of March they opened a Washington office of their own to produce information and disseminate knowledge both to Congress and themselves, for their own group of states. I wish to make the last point very clear, because information went out later that that group proposed to use this for the American Medical Association. That listening post for the six western states is in Washington today.

The New England States organized similar to our North Central Conference. They took a rather conservative attitude but their resolutions were very much in opposition to the idea of the American Medical Association that nothing should be done.

Then the Lake County Medical Society of Indiana started a new organization. It has received wide publicity. I think you know all about it. It has its good points.

The question which arose in the North Central Conference was whether we should endorse these various groups that are attempting to solve the legislative problem or still ask the American Medical Association to change its attitude. We decided on the latter course.

That resolution went through and, as far as we know, it was probably the deciding factor. The only thing I have to bring you on the Lake County organization is that up to the present time, last Tuesday, it had not received any recognition from the Indiana State Medical Society.

The Washington office which the new Council has established within the last couple of months is in charge of Dr. Joe Lawrence. He has been legislative representative of the State of New York for twenty years. He is probably the outstanding man of his type in the country. The bureau as established in Washington is to collect information from Washington, have it on file, and send it to the medical profession through the new Council and its bulletins. If you would like the bulletins, write to the Council and they will be sent to you every two weeks, or whenever they are issued. They will keep you in close touch with everything that is going on.

In addition, the Washington office is to serve as a bureau of information for Congressmen who wish information concerning the attitude of the American Medical Association.

*The Secretary:* Mr. Speaker, there are two delegates who signed cards, for which we have no credentials. Will they please furnish us with credentials before the meeting is adjourned. They are Dulin of Johnson and Bush of Story.

*Dr. MacEwen:* I should like to move the seating of Dr. Dulin. He was nominated to replace Dr. Albright who resigned.

*The Speaker:* What is the pleasure of the House on that motion?

*Colonel Marker:* I move he be seated as the delegate from Johnson County.

*The motion was regularly seconded, put to a vote, and carried.*

*The Speaker:* Are there any memorials and communications, Mr. Secretary?

*The Secretary:* Mr. Speaker, there are several communications regarding the EMIC program, and I move that these communications be referred to the Committee on Medical Service and Public Relations, and it can report at a future meeting.

*The motion was regularly seconded, put to a vote, and carried.*

*The Secretary:* I have a further communication, the resignation of Dr. Barnett as Councilor of the Eleventh District, because of ill health. I move, Mr. Speaker, that his resignation be accepted with regret.

*The motion was regularly seconded, put to a vote, and carried.*

*The Speaker:* Any new business?

*Dr. Painter:* I speak representing the Dubuque County Medical Society as its delegate. It says in



the official call of Dr. Woodward, President, that if any county medical societies have any definite ideas he would like to hear from them. Consequently, what I have to say will be, I think, a pretty good consensus of our county medical society. What I have to say is no criticism whatever of any member, any officer, or any committee, but our society does feel that this question of medical care is too much up in the air.

The Dubuque County Medical Society feels that the Iowa State Medical Society should take more aggressive action in the solution of economic and social problems which confront the members of this Society.

Dr. Bernard has just told us that men "in the know" say we mustn't play with this too much; we have a breathing spell; but something definite does have to be discovered and some definite action must be taken.

It believes that a more careful study should be made by a group of interested and competent members, that a survey of plans in operation in other sections of the country should be made by them, and that a definite, progressive, and comprehensive plan for medical care be offered to the Iowa State Medical Society for its consideration.

In view of this fact, the following resolution was passed at the regular monthly meeting of the Dubuque County Medical Society held April 14, 1944:

"That a special committee be appointed by the Iowa State Medical Society for the purpose of studying present plans of medical care as are in present use over the country and that a report and recommendation for definite action be made to the House of Delegates at the earliest possible time, at a special meeting, if necessary. Further, that sufficient funds be made available to this committee to carry on the work required."

There are two or three things, you will notice: first, a committee appointed, who are interested and informed, probably already, to study the program in other places; second, to recommend some definite action to the House of Delegates; and, third, to spend some money, if necessary.

Dr. L. F. Hill: Is this the proper time for resolutions from the county medical societies?

The Speaker: Yes.

Dr. Hill: The Polk County Medical Society has a resolution similar to that of Dubuque County. May I read the resolution:

"Whereas, the need exists for a prepayment plan for medical care; and

"Whereas, the American Medical Association, by its House of Delegates, has approved and recommended the establishment of local prepayment plans to fit local needs; therefore, be it

"RESOLVED, that the Polk County Medical Society requests the House of Delegates of the Iowa State Medical Society to instruct its Medical Economics Committee to formulate a prepayment plan for medical care on a state-wide basis."

The Speaker: Any other resolutions?

Dr. Hill: I have another one on a little different subject.

The Speaker: I believe the proper place for these resolutions is the Medical Economics Committee. If there is no objection, I shall refer them to that committee for suggestions and action.

Dr. G. P. Reed: I have talked to my bunch down there, and they want absolutely nothing to do with it. If it is brought out and becomes law, they would prefer to quit the whole business. They do not want anything whatever to do with it. That is the consensus in Decatur County. They would rather quit practice than be put into the herd and governed from above.

Dr. G. A. Lott: At a meeting of the Mitchell County Medical Society on April 4, all members were present except those in service, and it was unanimously adopted that this setup is neither acceptable nor agreeable.

The Speaker: What is the setup you are referring to?

Dr. Lott: Maternal care.

The Speaker: That is a different discussion.

Dr. J. A. Downing: When Sam Bernard, Jim Reeder and I were in Chicago, the Executive Council ruled to put this insurance thing on the shelf for the duration. Unless the House of Delegates overrules that, it is still on the shelf. Something is going to have to be done about that.

Dr. R. N. Larimer: It is very interesting for you gentlemen to bring up this problem. Woodbury County has been discussing it for many months. Certain legal phases of the problem of insurance have been handled. Plans for the organization of an insurance scheme have progressed. Money has been raised to finance the scheme. Before the State Society takes any steps to organize the entire state, within the scope of the resolutions from Dubuque and Des Moines, Woodbury County would like to put in its statement to the effect that it would prefer to organize its own group under its own rule.

Dr. A. W. Bennett: We in Johnson County have, for the past several months, had a committee making a detailed study toward some plan which could be brought in as a resolution. At the last moment we felt that it would require further study before we could make any concrete resolution.

The sense of the motion just made by the first speaker coincides very closely with our own group's study. At the last meeting of Johnson County Medical Society, our delegates were instructed to support such a resolution, if brought out.

The Secretary: The Secretary has your resolution from Johnson County, and it will be referred to the proper committee.

The Speaker: Any other resolutions?

Dr. Hill: Polk County has another resolution, not on the subject we have been discussing:

"The American Medical Association being the only official body of the American medical profession; now, therefore be it

"Resolved, that this House of Delegates of the

Iowa State Medical Society, meeting in full session in Des Moines, Iowa, April 21, 1944, go on record as favoring definite, aggressive action by the American Medical Association in economic, social and legislative activities, regardless of classification of the Association for taxation; and be it

"FURTHER RESOLVED, that this aggressive action be carried on through the Association's own Council on Medical Service and Public Relations."

The Speaker: This will be referred to the Committee on Medical Service and Public Relations. Any additional resolutions? Any other new business?

Dr. A. D. Woods: Is it pertinent at this time to discuss the Maternity and Child Welfare Act or would I be out of order?

The Speaker: I don't believe so.

Dr. Woods: It seems to me, Mr. Speaker and gentlemen of the House, that, inasmuch as there have been so many actions taken by the different county societies over the state in regard to maternity and child health, we as a body should take some action as a State Society. Marshall County, where I come from, unanimously rejected the plan. In Marshall County we are taking care of no maternity case on the basis recommended by the Children's Bureau. We are taking care of the women, and, if we have to, we will do it for nothing.

It seems to me that, in view of the fact there has been so much action taken by the different county societies over the state, we ought to discuss it here and take some action, definitely, as a State Society.

Last year when the report was made by the Maternal and Child Health Committee, there was no discussion. We adopted the recommendations of the committee. All hell broke loose in my section of the state in the fall, when the different men began to see what it all meant. I think that we should take some definite action here in this House. As it is now, it is just hit or miss all over the state. I think there are some other members who feel as I do.

Someone suggested that I make a motion. I *move*, gentlemen, that we reject the recommendations of the Children's Bureau, as a Society.

Dr. Bennett: I *second* the motion.

The Speaker: You have heard the motion.

President Woodward: I spent quite a little time traveling around, finding out what other states were thinking about it and what they were doing. I attended the Minnesota meeting in Rochester last week. The Council of the Minnesota State Society began at seven-thirty and talked this thing until noon; then they brought some resolutions into the House of Delegates, and they discussed it for an hour. This is an extremely hot baby. It all simmers down to this. We can't do a thing with the Children's Bureau. As long as it has an appropriation, it is going to carry on with its plan. We can either play ball or not play ball. We are in a spot where these wives and children must be taken care of. If we want to do it for charity, all right; otherwise, they have to pay for it.

The only thing we can do is to talk to the Appropriations Committee which meets in Washington on April 27—and the Minnesota State Society is going to send two men to Washington to see that committee on April 27. They passed some resolutions. I procured copies and sent them to Dr. Farnsworth. Do you have them?

Dr. Farnsworth: I have them up in the room.

President Woodward: I think it would be well for the Iowa House of Delegates to know what the Minnesota House of Delegates passed last week.

Executive Secretary McCord: Dr. Parker has a copy here.

The Secretary: It is among the resolutions I was referring, but I will read it:

"Whereas, the program now in operation for maternal and infant care for wives and infants of enlisted men in the four lower grades is unsatisfactory to the medical profession; and

"Whereas, the emergency provisions for the carrying on of the program as now in operation expires June 30, 1944; be it therefore

"RESOLVED, that the Council and the House of Delegates of the Minnesota State Medical Association recommend that the medical profession cooperate with the present program until its expiration date on June 30, 1944, but also urges Congress to abandon the program as constituted, on that date; and be it

"FURTHER RESOLVED, that under any new program after June 30, 1944, the benefits be designated supplemental aid in the form of an allotment for medical, hospital and maternal and infant care, similar to the allotments already provided for the maintenance of dependents, leaving the actual arrangement with respect to fees to be fixed by mutual agreement between the enlisted man's wife and the physician of her choice; and be it

"FURTHER RESOLVED, that the American Medical Association be urged to present to the appropriate committee of Congress, a concrete plan embodying this principle, to the end that the present and ultimate best interests of the wives and infants of men in service be served during the present emergency."

The Speaker: Any further discussion?

Dr. Suchomel: Mr. Speaker, I am not in favor of the program as it now exists. However, if you men who do any of this work will look at the blank that you send in, you will find there are two squares, one of which you are to check, signifying whether you are an M.D. or a D.O. The minute the Iowa State Medical Society goes on record as not favoring the present plan, that will offer the D.O.'s the golden opportunity of publicizing the fact that we are not cooperating in this respect, that we do not wish to give these women the care for which money is allowed, and they, in turn, will say, "We are willing to do it, and we will do it for what we are allowed under the present law."

That is another phase you must bear in mind. In other words, there is another group willing to take it up.



Dr. Farnsworth: The Committee on Maternal and Child Health seems to have been kicked all over the state. I want to assure you there isn't a member on the committee who likes this thing any better than you do, but I think we have probably made a more careful study of it than any other group or any individual doctor in the state, and we have come to somewhat the same conclusion, much against the wishes, that Dr. Suchomel just mentioned. If we don't carry along with this and try to control it until the end of this year and then insist that changes be made, other groups can capitalize on our non-cooperation.

We don't like it; the committee doesn't like it. We passed a resolution that we were going to quit the first of January, but we saw it was an impossible thing to do. I believe things are shaping up somewhat. If we carry on with this to the end of this fiscal year, June 30, perhaps next year the thing will be a little better. It is something of which we have to take care. The money is there, and the money is going to be spent, whether we like it or not.

Dr. Hill: Mr. Speaker, as a member of Dr. Farnsworth's committee, may I say just a word. I don't know anything the Iowa State Medical Society could do which would hurt its own cause more than to adopt the resolution Dr. Woods has just made. We are on the spot anyway. Now is the time, it seems to me, when we should be extremely careful of what we do. I think it is perfectly true that every one of us resents the way in which the government hurried through this bill without giving organized medicine a share in its formulation, its proposals. I think we resent the fee schedules that were set up by the Children's Bureau.

On the other hand, we should look at this thing from a national point of view. I think Dr. Suchomel knows that the enlisted men, the country over, feel it is a help to them. They get \$50.00 a month, and that is not very much money to pay all their expenses.

I think it is also true that some of the military encampments whose medical facilities were insufficient to take care of the obstetric needs of the wives of these men have now been relieved of these duties, because the wives have sufficient money to purchase care in civilian hospitals. There are two and one-half million servicemen, I believe, who are eligible for this kind of care. I am just giving you the other side of the argument, the national picture, and what would happen to us in Iowa if we turn this thing down. The Surgeon General of the Army and the Surgeon General of the Navy have favored it, have said that it was doing a good job, and have expressed their thanks to the medical profession.

I would much rather see this House of Delegates voice its objections to the program rather than to turn down the whole program, and see if we can't get those objections modified. I think we should wait to see what happens on April 27, after this hearing. It may be that the thing will be modified to suit us much better. I think we should be extremely careful not to go on record as being com-

pletely opposed to a program which is apparently quite suitable to the enlisted men and to a good many other groups, such as the American Legion.

Dr. Fay: Colonel Marker has something started at Fort Des Moines. I should like to hear him tell us about it.

Colonel Marker: Mr. Speaker, the only thing we have started has been going on at Fort Des Moines for a long time, and that is the care of the dependents of soldiers who have been at Fort Des Moines, or living in this community over a long period of years. It was rather unfortunate that the public relations office, in sending in the article which was published last Friday in the local paper, did not have it gone over first by the surgeon of the post to pick out the flaw in the article. The difficulty is this: They gave the idea that we were going to take care of all soldiers' dependents out there, which was never intended, and which we haven't been doing, and which we don't intend to do, only as an emergency. We don't touch those in the last four grades that are covered by the EMIC program. There are soldiers, though, in the first three grades, and there are officers in the lower grades; it doesn't affect people after they get to be colonels, who need the help. We are going to render service to those people who would have a hard time to pay a bill under any circumstances, but they are not of the last four grades which the maternity program covers.

The thing I should like to say is this: The sanest idea I have heard here tonight, to my way of thinking, is the resolution that came out of Minnesota. I think it is a sane resolution because they spent time in formulating it.

There is just one thing that I think should be added to it, or that should be kept in mind in talking to the legislators, and that is that if soldiers' dependents do go into institutions such as ours and are delivered, these benefits should not be available.

Dr. Suchomel: Mr. Speaker, I wish to *offer an amendment* to Dr. Woods' motion, that the Iowa State Medical Society, through the House of Delegates, authorize the Board of Trustees to appoint two representatives to cooperate with the Minnesota delegation in support of their resolution.

Colonel Marker: Mr. Speaker, I do not think the Trustees should appoint anyone. I think the Trustees might be very willing to appropriate the money for the purpose of sending them to Washington.

Dr. Suchomel: That is what I meant.

Colonel Marker: The House of Delegates should appoint them.

President Woodward: Mr. Speaker, I heard this discussed in Indiana, Illinois, Wisconsin, and Minnesota. The discussions were all parallel and all hinged on just how that money was handled. In all of those states they preferred an allotment to the enlisted man's wife with the wife paying the doctor. I have heard representatives of the Children's Bureau speak two or three times; they are consistently opposed to that. They want to handle the

money, and they don't want to pay it to the wife. They want to pay it to the doctor. The Children's Bureau takes the position that the wives are, most of them, young girls, and don't know how to handle money; the Children's Bureau thinks it can handle it better than the wives.

We had a little experience in our state with the old age pension. There is much dissatisfaction because the money is paid to the recipient of old age pensions, and many times the doctor does not get it. We are going to have to face the fact that if an allotment is made to the wife, you may or may not get your money. I know it is true that all four states agreed that, although they would probably lose a little money if paid direct, they preferred the allotment.

Dr. Hill: May I make one further suggestion, this is not in the form of a motion—merely a suggestion, that Dr. Farnsworth's committee be instructed to draw up a suitable resolution for consideration Friday morning, and that copies of this resolution then be sent by wire to our Congressional representatives, the Senators, and our Congressmen in the House for their consideration before this vote comes up on April 27. It seems to me we will get more action that way than by turning down the whole thing. We ought to go along until we see what is going to happen, it seems to me. By so doing we could voice our opposition to the present method of payment. Also, in this resolution, if I gather the sense of the group here, what we would like to have is the money paid directly to the mother and then let her pay the doctor. I think that might be as effective a procedure as we could follow at the present time.

Dr. Woods: Mr. Speaker, I rise to a point of order. That is out of order. There is a motion before the House, and until that motion is acted upon and the amendment, his suggestions are out of order.

The Speaker: He only offered that as discussion, not as a motion.

Dr. G. V. Caughlan: I *second* the amendment as offered by Dr. Suchomel.

The Speaker: Might the Chair discuss that question? (Agreed) I have had a little experience, an interesting experience, in the last six months. I have given a good many talks in quite a few communities in southwestern Iowa on the Murray-Wagner Bill. I have never discussed this baby question as a part of that talk. But I did make it a point, after this maternity business became an issue, of discussing with these groups, as individuals, what their reaction would be on this obstetric thing. I have never had one of those groups to whom I talked on the Murray-Wagner Bill which didn't immediately adopt resolutions opposing it as individuals and as an organization. I gave fifteen talks during that period. In most of these communities, in most of these groups, I felt out the individuals. While they were with us on this Murray-Wagner Bill, I do believe there would be a terrific resentment if we absolutely dropped this maternity thing and shut it off right off the bat. It seems to me that the propo-

sition which was offered by Dr. Farnsworth's committee, which is somewhat along the lines of the Minnesota resolution, would be a little bit more helpful to us.

If there is no further discussion, we will vote on the amendment.

Dr. W. A. Sternberg: I rise to a point of information, please. Could I have Dr. Suchomel's suggestion read, please? It seems to me it is a little ambiguous. Is Dr. Suchomel's suggestion in the form of an amendment to Dr. Woods' motion?

The Speaker: Yes.

Dr. Sternberg: That the Board of Trustees do what?

The Speaker: That they appropriate the necessary money for two men to be appointed.

Dr. Sternberg: Dr. Woods' motion is not to that effect.

Colonel Marker: I rise to a point of order. I killed Dr. Suchomel's motion with my remarks. There was no second.

The Speaker: Not until afterwards.

Dr. G. H. Keeney: I should like to *amend* Dr. Woods' motion so that the whole matter may be referred to a committee for further study and report Friday morning.

Dr. Suchomel: *Second* the amendment.

The Speaker: You have heard the amendment. It has been seconded. Did you want that referred to a special committee or to the Committee on Maternal and Child Health?

Dr. Keeney: To Dr. Farnsworth's committee.

The Speaker: You have heard the amendment, which has been seconded.

Dr. Woods: Mr. Speaker, before we vote, I want to say that the remarks I have made are backed by Marshall County Medical Society, 100 per cent. We are not afraid of the Children's Bureau, and we are not going to be dictated to in Marshall County. That is settled. Nobody that I know of up there is signing these papers. Now, then, do we want to be dictated to?

I wish we could hear from Dr. Plass. I read a letter of Dr. Plass' up at Monticello. I think we should hear from Dr. Plass and let him tell you what kind of a bunch there is down there in Washington. Where is he? I read the letter that you wrote, Dr. Plass. Tell us about that bunch down there, what you think of them. We in Marshall County are not afraid of them.

Dr. Larimer: It is very well to talk about giving free medical service to soldiers' wives if you live in Marshall County. You should live in Woodbury County where we have several thousand, five to ten thousand, we never know how many, of military men, plus many more passing through, who are there for periods of three to six months, many of whom bring their wives.

I presume that from 150 to 300 babies are delivered of servicemen's wives per month. If anybody wants to deliver that many children for nothing, it is well and fine, but you can't do it in Woodbury County and have some of the boys eat. One



man told me he had fifteen new servicemen's wives in one week. Any of you country boys who have that many obstetric cases in one week would think you were working pretty hard. This man is a general practitioner.

In Sioux City we had to deal with the problem the same as in Tacoma. That is the way the thing started out in Tacoma. We established a clinic. The Visiting Nurses' Association does most of the prenatal work. The doctors are there one day per week. The girls have a choice of physicians if they go to the hospital, and the money is split among the visiting nurses and the doctors, and, of course, the hospital gets its fee. But if this Society should go on record as throwing the thing out, it would be ill advised as far as Woodbury County is concerned. There aren't enough doctors up there to do the work for nothing.

Dr. Woods: You are willing to be dictated to by the Children's Bureau?

Dr. Larimer: These soldiers' wives are having babies and they have to receive medical care.

Dr. C. P. McHugh: Supplementing Dr. Larimer's remarks on Woodbury County, when you talk about dictating, we laid the foundation for that here some years ago in the House of Delegates when we accepted the program and gave it our blessing. We didn't quite know the angles. But no matter whether it is Marshall County or Woodbury County, we are facing a problem. When a fellow comes out of the jungles at New Guinea and somebody says that the doctor at Marshalltown wouldn't take care of his wife because he was only going to get \$35 for the delivery, and he is working for \$50 a month, he is going to be pretty mad. The big problem which faces all of us is state medicine. We have to give some service, but we are entitled to have something to do with government. In Woodbury County we have a very happy solution. We have a lot more cases to deal with than they have in many other counties. They can accept this clinic service which is offered by some doctor who is there for two or three hours on Thursday mornings to examine the wives.

Gentlemen, we have a problem. We have to face it. Somebody suggested a while ago that the osteopaths accept this work, and they do. We are up against a proposition. Also, I might add while I am on my feet that the doctors in the Army are facing a proposition. They have a chance to build up good will among ten million enlisted men, or they can handle them as cattle and build up a lot of ill will. That has been done, too. I am not just talking offhand. We are facing a deal where we can come out as doctors and control the situation, but we can't do it by refusing service to our soldiers' wives. When a fellow comes out from some jungle in which he has been for weeks and weeks and says, "Some doctor wouldn't take care of my wife in Marshalltown because they would only give him \$35.00," he is going to be mad, and every man in his company is going to be mad. We are building up ill will

when we don't make an intelligent solution of the problem.

Dr. C. A. Henry: I should like to second Dr. Suchomel's remarks because he expressed the feeling of most of the doctors in Wapello County who belong to our Society. We are taking care of the maternity cases of the armed forces, and some doctors are accepting the \$35.00 fee. The majority of them are taking care of the patients; if they are able to pay, all well and good. We do not want the soldiers to feel that while they were in the army we doctors wouldn't take care of their wives because there was a lack of money.

The Speaker: Any further discussion? If not, we will vote on the amendment. Those in favor of the amendment signify in the usual manner; contrary. *The amendment is carried.* We will now vote on the motion.

Dr. Keeney: As I understand it, this is the motion with the amendment.

Executive Secretary McCord: The motion was that we reject the recommendations of the Children's Bureau as a Society. The amendment refers it to the Committee on Maternal and Child Health for consideration, instead of rejecting it.

Dr. Keeney: With the view of the Minnesota resolution.

Dr. Woods: Vote on the motion as amended.

Dr. Hill: Then you couldn't send it to the liaison committee. It would be gone.

Colonel Marker: I *move* we lay the motion on the table until Friday morning, when we will have the report from our committee.

*The motion was regularly seconded.*

Dr. Woods: I rise to a point of order, Mr. Speaker, that, according to Robert's Rules of Order, when there is a motion before the house, it has to be acted upon, and an amended motion has to be acted upon. You have acted only upon the amendment. Now you have to vote on the motion.

Dr. Suchomel: Mr. Speaker, I wish to correct Dr. Woods. A motion to table is in order at any time.

Dr. Woods: When you table the amendment, then you table everything.

Dr. Suchomel: Okeh.

The Speaker: You have heard Colonel Marker's motion. All those in favor of Colonel Marker's motion signify in the usual manner; contrary. *The motion is carried.* Any further new business?

Dr. Fay: Mr. Speaker, I should like to know whether Dr. Farnsworth's committee makes a report to the House on Friday or whether it doesn't. I don't believe the House knows.

The Speaker: I don't either.

Executive Secretary McCord: Dr. Farnsworth said, before any of this came up, he was going to make a report Friday morning. Nothing has been done to change the status of that statement.

Dr. Fay: Then he makes the report.

Member: We are just where we started.

Dr. Woods: Mr. Speaker, we are a whole lot farther along than when we started because we have

had a discussion in this House, something we haven't had for several years.

The Speaker: Any further new business?

President Woodward: Mr. Speaker, when the American Medical Association's Committee on Medical Service and Public Relations was organized, it sent a letter to the states asking that a committee be appointed to act on a state level. I appointed such a committee to act until the House of Delegates met. I think it is so important that it should be continued, and I *move*, Mr. Speaker, that we have a Special Committee on Medical Service and Public Relations of the House of Delegates of the Iowa State Medical Society.

*The motion was regularly seconded, put to a vote, and carried.*

Dr. Bernard: I was about to mention that I find, in looking over this list, only two of the doctors on that committee are members of the House of Delegates, and I think several of these documents have been referred to this committee, have they not?

The Speaker: Yes, they were.

Dr. Bernard: A technical point. Can men who have not sat in the House of Delegates pass on resolutions which have been presented in the House? I am not trying to shirk any duty at all.

Dr. Fay: What has been referred to your committee?

The Speaker: Several of the resolutions which were introduced were referred to that committee.

Dr. Hill: Medical Economics Committee, all of them.

The Speaker: Some to the Medical Economics Committee too. One of the resolutions you had, Dr. Hill, was referred to Dr. Bernard's committee. They don't have to be members of the House of Delegates to serve on the committee.

Dr. Bernard: I wanted to bring up that point so there wouldn't be any misunderstanding. I think the men on the committee are conversant with what we are talking about.

The Speaker: We have a proposition, and that is, we can vote on the election of life members at this meeting or at the Friday meeting. There is a list of applications for life membership. What is your pleasure?

Dr. Hill: Do it tonight.

Executive Secretary McCord: I have a request from the Wapello County Medical Society in regard to Dr. Frank W. Mills. He has practiced medicine for fifty years and been a member for thirty years, and he is therefore eligible for life membership.

Dr. Fay: I *move* Dr. Mills be made a life member.

*The motion was seconded, put to a vote, and carried.*

Executive Secretary McCord: This next one, I am sorry, I have not checked. "Inasmuch as Dr. H. L. Stevens will have practiced medicine for fifty years, the Society makes the same recommendation for him." I do not know whether he has been a member for thirty years, and I will have to check that.

The next request is from Bremer County:

"Application is hereby made to make Dr. R. H. Stafford of Sumner, Iowa, a life member of the Society. On January 12, the date of our last meeting, Dr. Stafford was reinstated as a member of the Bremer County Society and his dues were waived because of his physical disability and his inability to pay.

"Dr. Stafford was born in 1859. He graduated from the Rush Medical College in 1890. He has been a practicing physician since that time. He is now in his eighty-fourth year, is confined to a wheel chair, and is able to get about a little with the aid of crutches. He is doing very little work and that of an office nature. The Bremer County Medical Society makes this request in his behalf."

The request is made on the basis of disability.

Dr. Hill: I *move* he be granted life membership.

*The motion was regularly seconded, put to a vote, and carried.*

Executive Secretary McCord: This comes from Grundy County:

"Our Society would like to recommend that Dr. George Gould of Conrad, Iowa, be given life membership in the State Society, because of disability."

Dr. H. V. Kahler: Dr. George Gould is in bad shape, with diabetes, and is not able to practice at all.

The Speaker: What is your pleasure?

Dr. Hill: I *move* the request be granted.

*The motion was regularly seconded, put to a vote, and carried.*

Executive Secretary McCord: This comes from Chickasaw County:

"In regard to Nicholas Schilling, the members of the local society feel that Dr. Schilling is entitled to life membership. He has practiced medicine since 1897 and has been disabled due to a cardiac lesion since June 5, 1943. In view of this disability, payment of dues would be an increased burden on him, and we would appreciate it if you would present his name to the House of Delegates for election to life membership in the Society at the coming convention."

The Speaker: What is the pleasure of the House of Delegates?

Dr. Caughlan: I *move* life membership be granted.

*The motion was regularly seconded, put to a vote, and carried.*

Executive Secretary McCord: This comes from the Polk County Medical Society, and I have two letters from them.

"The Board of Trustees of this Society has granted life membership to Doctors Harootune A. Minassian, Edwin B. Walston, and Charles W. Tyler, all of whom have been engaged in the practice of medicine for more than fifty years."

I have checked those, and they have been members for more than thirty years and so they are eligible.

"The Board has also granted life membership to Doctors William W. Pearson and Charles M. Werts,



both of whom have retired from practice by reason of physical disability."

This letter was written February 4. The only membership to consider is Dr. Werts, because of disability.

Dr. Fay: That makes four in Polk County.

Executive Secretary McCord: That is four; three because of fifty years and one because of disability.

Dr. Fay: Which was disability?

Executive Secretary McCord: Dr. Werts.

Dr. Fay: He has been a member for thirty years.

Dr. Caughlan: I move life membership be given these four doctors.

*The motion was regularly seconded, put to a vote, and carried.*

Executive Secretary McCord: This is a second letter from Polk County Medical Society, dated March 17:

"Our Council has recommended life membership in the Iowa State Medical Society be granted to Doctors Walter L. Bierring, Ellis G. Linn, James T. McBride, William Carpenter, and David T. Nicoll."

These men have all practiced fifty years and have been members for thirty. They are eligible.

Dr. Hill: I move they be accepted.

*The motion was regularly seconded, put to a vote, and carried.*

Executive Secretary McCord: From Cerro Gordo County Medical Society:

"This communication is to request that a member of our society, Dr. Stella Mason, be voted life membership in the State Medical Society. She has fulfilled the requirements of fifty years of practice of medicine and thirty years as a member of the Cerro Gordo County Medical Society."

Dr. Suchomel: I move she be granted life membership.

*The motion was seconded, put to a vote, and carried.*

Executive Secretary McCord: This is from the Harrison County Medical Society:

"The Harrison County Medical Society recommends that Dr. E. J. Cole of Woodbine be granted a life membership because of fifty years' practice and paying dues for thirty years."

Dr. Caughlan: I move the request be approved.

*The motion was regularly seconded, put to a vote, and carried.*

Executive Secretary McCord: We have a request from the Ringgold County Medical Society that life membership be granted to Dr. Franklin C. Smith of Mount Ayr who has practiced medicine for fifty years and been a member for thirty years.

Dr. Suchomel: I move the membership be granted.

*The motion was regularly seconded, put to a vote, and carried.*

Executive Secretary McCord: This is from the Mahaska County Medical Society:

"Dr. Frederick L. Barnes of Oskaloosa has been forced to close his office due to heart disease," and life membership has been asked because of disability.

Dr. Caughlan: I move it be granted.

*The motion was regularly seconded, put to a vote, and carried.*

Executive Secretary McCord: Then there are two names from Linn County, J. W. Morrison of Cedar Rapids and E. M. Adams of Central City. Both of them have practiced fifty years and been members for thirty and are eligible under the new rule.

Dr. Suchomel: I move the memberships be granted.

*The motion was regularly seconded, put to a vote, and carried.*

Executive Secretary McCord: This is from Adams County:

"At our regular meeting today we recommended Dr. Frederick Binder as life member in the Iowa State Medical Society. He is incapacitated, entirely, at the present time."

Dr. Caughlan: I move he be elected to life membership.

*The motion was regularly seconded, put to a vote, and carried.*

The Speaker: There are 74 delegates and officers and 14 alternates present. If there is no further new business, after we adjourn the various delegates will get together and elect a member from their district to the Nominating Committee.

Dr. Suchomel: Mr. Speaker, I am going to ask the privilege of making a supplementary report. You did not call on us. We have a supplementary report on Procurement and Assignment, the most popular committee in the state.

Since the publication of the report of the Procurement and Assignment Chairman in the Handbook, no new developments have taken place. There are, however, two situations which I feel should be brought to the attention of this House of Delegates. Ever since the inauguration of the Medical Preparedness Committee in August, 1940, we have had excellent cooperation from the various committees in the 99 counties of Iowa.

In October, 1943, we received a roster of Iowa physicians from the Liaison Officer of the Surgeon General's office at the American Medical Association. We were ordered to check this roster against our records and return it with corrections. This roster contained names of every individual holding an M.D. degree and accredited to one of our 99 counties. There were several hundred names of whom we had absolutely no record. County lists were compiled and forwarded to each county, together with an equal number of classification cards, with the request that a card be filled out for each physician on the list. This is the only means by which we could check the roster that came from Chicago. That was in October of 1943.

So far we have received reports from 91 counties. We had hoped to have the corrected roster back in Chicago by March first. However, we were disappointed in the response of the last few counties, finally sending in the list on April 15, 1944, with eight counties still unaccounted for. I might add

that these lists were all sent to the secretaries of the county societies as listed in the JOURNAL of the Iowa State Medical Society. We realize that it is an additional burden on our county men to submit these reports. However, if you multiply this by 99 you will approach the burden placed upon the Chairman. Following are the counties which have failed to respond: Allamakee, Crawford, Fayette, Fremont, Greene, Lee, Pottawattamie, and Union.

Every month we are required to submit a report to Washington on all changes occurring within the state, including new men in the county (from where), men leaving the county (to where), men entering service, men discharged from service, retirements, and deaths. To facilitate this procedure, we have sent to each district chairman a supply of forms which are to be sent by him each month from each county, listing all changes. The response to this has been fairly gratifying. Although many of the districts fail to send in a 100 per cent report, we do get some report from each district.

In order to facilitate the maintenance of our records, we sent to each county secretary a supply of classification cards with the request that a card be completed for each new physician entering the county and forwarded to our office. These have not been coming in as well as we expected, as is evidenced by numerous inquiries received from Washington concerning information about physicians of whom we know nothing. We get this information by writing one or sometimes two or more letters to the county secretaries.

Heretofore we have not submitted the names of the district chairmen. We are departing from that policy, and I wish to announce the chairmen for the various Councilor Districts:

- First District: L. L. Carr, West Union.
- Second District: L. R. Woodward, Mason City.
- Third District: George H. Keeney, Mallard.
- Fourth District: James E. Reeder, Sioux City.
- Fifth District: J. A. Downing, Des Moines.
- Sixth District: T. F. Thornton, Waterloo.
- Seventh District: F. F. Agnew, Independence.
- Eighth District: L. C. Howe, Muscatine.
- Ninth District: H. A. Spilman, Ottumwa.
- Tenth District: J. G. Macrae, Creston.
- Eleventh District: M. C. Hennessy, Council Bluffs.

The Speaker: Will each district notify the Secretary immediately after the selection of your member of the Nominating Committee, before you leave the room?

President Woodward: When will the next meeting of the House of Delegates be held?

The Speaker: That is to be decided. The next order of business, I guess, is a motion to adjourn, with the setting of the time for the next meeting of the House of Delegates.

President Woodward: Mr. President, I move it be at seven-thirty Friday morning.

Dr. Fay: Make it eight o'clock.

*The motion was regularly seconded.*

The Speaker: The motion has been made that

the next meeting of the House of Delegates be at seven-thirty Friday morning. It has been seconded. Any discussion? All those in favor of the motion signify in the usual manner; contrary. *The motion is lost.*

Dr. Fay: I move we adjourn to meet at eight o'clock Friday morning.

Dr. Suchomel: I second the motion.

The Speaker: Motion has been made that the House adjourn until eight a. m. Friday morning. It has been seconded. Any discussion? All those in favor of the motion signify in the usual manner; contrary. *The motion is carried.*

The meeting recessed at nine forty-five o'clock.

#### Friday Morning, April 21, 1944

The final session convened at eight-five o'clock, Dr. Hennessy presiding.

The Speaker: The House of Delegates will come to order. The Secretary will please call the roll.

Secretary Parker called the roll and the following delegates, alternates, and officers were present:

#### HOUSE OF DELEGATES

##### Delegates

Allamakee.....	J. W. Thornton
Black Hawk.....	E. E. Magee
Boone.....	A. B. Deering
Bremer.....	L. D. Jay
Buchanan.....	F. F. Agnew
Butler.....	Bruce Ensley
Calhoun.....	R. G. Hinrichs
Cerro Gordo.....	H. D. Fallows
Cherokee.....	C. F. Obermann
Chickasaw.....	P. E. Gardner
Clarke.....	C. R. Harken
Clinton.....	R. F. Luse
Decatur.....	G. P. Reed
Delaware.....	Paul Stephen
Des Moines.....	F. G. Ober
Dickinson.....	T. L. Ward
Dubuque.....	J. C. Painter
Emmet.....	M. T. Morton
Fayette.....	C. C. Hall
Floyd.....	O. H. Banton
Fremont.....	Kenneth Murchison
Grundy.....	H. V. Kahler
Hamilton.....	M. B. Galloway
Henry.....	S. W. Huston
Howard.....	W. A. Bockoven
Jefferson.....	J. S. Gaumer
Johnson.....	E. M. MacEwen
Johnson.....	A. W. Bennett
Keokuk.....	C. L. Heald
Kossuth.....	W. F. Hamstreet
Lee.....	B. J. Dierker
Linn.....	J. K. von Lackum
Linn.....	T. F. Suchomel
Marion.....	E. C. McClure
Marshall.....	A. D. Woods
Mitchell.....	G. A. Lott
Monona.....	E. C. Junger
Muscatine.....	L. C. Howe
O'Brien.....	W. R. Brock
Osceola.....	W. F. Thayer
Pocahontas.....	W. F. Brinkman
Polk.....	R. C. Doolittle
Polk.....	W. E. Baker
Polk.....	L. F. Hill
Polk.....	C. W. Losh
Pottawattamie.....	G. V. Caughlan



Ringgold.....	E. J. Watson
Sac.....	J. R. Dewey
Scott.....	George Braunlich
Story.....	E. B. Bush
Taylor.....	J. H. Gasson
Van Buren.....	L. A. Coffin
Wapello.....	C. A. Henry
Washington.....	W. L. Alcorn
Wayne.....	A. E. Davis
Winneshiek.....	E. F. Hagen
Woodbury.....	R. N. Larimer
Woodbury.....	C. T. Maxwell
Wright.....	R. D. Bernard

#### Alternates

Buena Vista.....	H. E. Farnsworth
Davis.....	C. H. Cronk
Greene.....	J. M. Jackson
Humboldt.....	C. A. Newman
Jasper.....	J. W. Billingsley
Johnson.....	M. E. Barnes
Jones.....	T. M. Redmond
Lucas.....	G. F. Niblock
Madison.....	C. B. Hickenlooper
Monroe.....	J. F. Stafford
Union.....	C. C. Rambo
Webster.....	D. L. Borgen

#### State Society Officers

President.....	L. R. Woodward
President-Elect.....	M. C. Hennessy
Secretary.....	R. L. Parker
Treasurer.....	J. A. Downing
Trustee.....	O. J. Fay
Trustee.....	W. A. Sternberg
Trustee.....	J. I. Marker
Councilor.....	L. L. Carr
Councilor.....	C. H. Cretzmeyer
Councilor.....	J. B. Knipe
Councilor.....	J. E. Reeder
Councilor.....	E. F. Beeh
Councilor.....	J. C. Hill
Councilor.....	H. A. Householder
Councilor.....	R. C. Gutch

The Speaker: The Secretary will read the minutes of the previous meeting.

Secretary Parker read the minutes of the Wednesday evening meeting.

The Speaker: You have heard the reading of the minutes. What is your pleasure?

President Woodward: I *move* that they be approved.

*The motion was regularly seconded, put to a vote, and carried.*

The Speaker: We shall now have the report of the Committee on Nominations.

Dr. MacEwen: Mr. Chairman, the Nominating Committee, consisting of Doctors Bockoven, Fallows, Brock, McHugh, Losh, Magee, MacEwen, Coffin, Henry, Sayre, and Caughlan met in Parlor A at ten Thursday morning, April 20, 1944. Dr. MacEwen was elected Chairman and Dr. Sayre, Secretary of the group.

After due deliberation, the committee presents the following nominations for the consideration of the House of Delegates:

President-Elect: R. D. Bernard of Clarion; H. A. Spilman of Ottumwa; T. F. Suchomel of Cedar Rapids.

First Vice President: Fred L. Knowles of Fort Dodge.

Second Vice President: Edward W. Anderson of Des Moines.

Trustee: Walter A. Sternberg of Mt. Pleasant.

Councilors: Third District, J. B. Knipe of Armstrong; Eighth District, C. A. Boice of Washington; Eleventh District, W. S. Reiley of Red Oak.

Delegates to the American Medical Association: T. A. Burcham of Des Moines; T. F. Thornton of Waterloo.

Alternate Delegates to the American Medical Association: George C. Albright of Iowa City; George Braunlich of Davenport.

The Secretary: I *move* we accept the report of the Nominating Committee.

*The motion was seconded, put to a vote, and carried.*

The Speaker: We shall now proceed with the election of President. Are there nominations from the floor for the office of President? If not, we shall proceed with the election. I should like to ask Doctors Jay, Householder, and Banton to act as tellers.

Ballots were distributed and the delegates proceeded to vote.

The Secretary: Has anyone come in since the roll call? If not, you have 59 delegates, 12 alternates and 15 officers present, a total of 86 votes.

The tellers proceeded to count the ballots.

Dr. Suchomel: Mr. Speaker, I *move* that the rules be suspended and the Secretary be instructed to cast the unanimous ballot of the House of Delegates for Dr. Bernard as President-Elect.

*The motion was regularly seconded, put to a vote, and carried.*

The Speaker: Dr. Bernard is your new President.

The Secretary: After the Secretary casts the unanimous ballot! It gives the Secretary great pleasure to cast the unanimous vote of the House for Dr. Bernard as President-Elect.

The Speaker: Does the new President have anything to say?

President-Elect Bernard: Mr. Speaker and Gentlemen: I am not making any speeches. I appreciate the fact that you have made it possible for me to have this honor, I think the highest honor the state can confer on anyone, but I don't want you to think for a minute I am egotistical enough to feel that this is for my efforts. You fellows have come through for ten long years in this legislative work, every time you have been asked. You have given me marvelous support. I want you to know that I appreciate it from the bottom of my heart.

The Speaker: Are there any more nominations from the floor for any of the other offices? What is your pleasure with relation to the balance of the offices? Do you wish to vote on them separately?

Dr. Suchomel: Mr. Speaker, there being no further nominations from the floor, I *move* that the Secretary be instructed to cast the unanimous ballot of the House of Delegates for the balance of the offices as submitted by the Nominating Committee.

*The motion was regularly seconded, put to a vote, and carried.*

The Secretary: The Secretary casts the unanimous vote of the House for the officers who were nominated.

Dr. Bernard: Mr. Speaker, there is no precedent, as far as I know, in the State Society when a man holds two elective offices. Although other states send their officers to the American Medical Association as delegates and they are often very active there, I have felt that should the honor of being made President-Elect fall upon me, I should present my resignation as delegate. It may be all right in one instance for a man who is President-Elect or President to be a delegate. There may be several instances like that, but it may sometime embarrass the House or the Society if some individual has two elective offices, which are important to the welfare of the rank and file of the society. With that in mind, I wish to resign as delegate to the American Medical Association after this honor which has been conferred upon me.

Dr. Magee: I *move* we accept the resignation.

Dr. Householder. I *second* it.

Dr. Baker: I should like to *move* that we accept this resignation after the meeting of the American Medical Association.

The Speaker: A motion was made to accept the resignation and it was seconded, and then an amendment made to withhold the acceptance until after the meeting of the American Medical Association this year.

Dr. Baker: That is right.

The Speaker: Was that amendment seconded?

*The amendment was regularly seconded, put to a vote and carried.*

The Speaker: We shall proceed to vote on the motion as amended. All those in favor signify in the usual manner; contrary. *The motion as amended is carried.*

Dr. Fay: How does it stand now? Does Dr. Bernard remain as a delegate to the American Medical Association until after the meeting and then resign? Is that where it is now?

The Speaker: That is my understanding of the motion and the amendment, that he serves until after the annual meeting this year. We shall have reports of the committees. I shall ask for the report of the Medical Economics Committee first.

Dr. Maxwell: Report of the Medical Economics Committee:

Three members of the Medical Economics Committee met April 20 to consider the resolutions and letters referred to it by the House of Delegates at its meeting April 19. As a result of its deliberations, the following recommendations are presented to the House of Delegates:

1. That the House of Delegates of the Iowa State Medical Society approve in principle prepayment plans for medical care on a non-profit basis.

2. That the Legislative Committee be authorized and instructed to prepare and work for such legislation as may be necessary for such plans.

3. That a committee be appointed to prepare and submit to the Executive Council plans for putting such a program into effect.

I *move* the adoption of the report.

*The motion was regularly seconded.*

The Speaker: You have heard the report of the Medical Economics Committee. It has been moved and seconded that that report be adopted. Any discussion?

Dr. Painter: This is a very serious question for the members of this Society. As I look over this body, I see more men who are thinking about stopping the practice of medicine that I do of men who are about to start. We might feel, "Well, let things ride. It isn't so serious." We were told yesterday, as we have been told many times, that we have a breathing spell. Maybe that is true; we hope it is, but breathing spells don't continue forever, without change. I think also, as I look at this group of men, there are probably many here who have young sons or young friends in the services. I think our largest duty is to preserve the free practice of medicine until these young men can get back to take care of it for themselves.

I have always felt that the organization of this Society was democratic. By that I mean these delegates are elected by their county societies to have a voice in and to help formulate the policies of this organization. Now, I do not agree, and I do not believe the people in my county society will agree at all to having this matter referred back to the Executive Council. I think this is such a serious problem that it should be referred back to the House of Delegates. Mr. Speaker, I wish to *amend* that motion, that this committee refer its findings and recommendations back to a special meeting of the House of Delegates to be held not later than four months from today.

Dr. Woods: I wish to *second* that motion, Mr. Speaker.

The Speaker: There is an amendment offered to the motion to accept the report of the Economics Committee. Any discussion on that amendment? If not, we shall vote on the amendment. All those in favor of the amendment please signify in the usual manner; contrary. *The motion to adopt the amendment is carried.* We shall now vote on the motion. Any discussion of the motion? If not, those in favor of the motion as amended signify in the usual manner; contrary. *The motion as amended is carried.*

We shall now have the report of the Committee on Medical Service and Public Relations.

Dr. Bernard: There is the resolution introduced by Polk County, reading as follows:

"The American Medical Association being the only official body of the American medical profession; now, therefore, be it

"RESOLVED, that this House of Delegates of the Iowa State Medical Society meeting in full session in Des Moines, Iowa, April 21, 1944, go on record as favoring definite, aggressive action by the American Medical Association in economic, social



and legislative activities, regardless of classification of the Association for taxation, and be it

"FURTHER RESOLVED, that this aggressive action be carried on through the Association's own Council on Medical Service and Public Relations."

The committee *moves* the adoption of this resolution.

The Speaker: You have heard the report of the Committee on Medical Service and Public Relations and its recommendation. A motion has been made to adopt that resolution.

Dr. Bernard: The committee further recommends that the delegates to the American Medical Association be instructed to present this resolution to the House of Delegates of the American Medical Association at its next meeting.

The Speaker: You are including that as a part of your report?

Dr. Bernard: No, it is a separate recommendation for the sake of clarity.

The Speaker: You have heard the recommendation and the motion. Was it seconded?

*The motion was regularly seconded.*

Member: Isn't this just the same as the motion on which we just voted?

The Speaker: No, sir. This is a recommendation to the American Medical Association that, regardless of taxation, it should spend its funds to fight for the medical profession.

Dr. Bernard: This resolution would be valueless if it were buried in our own files. It must be presented to the delegates of the American Medical Association to signify our stand on this matter. Probably forty states will have the same resolution.

Colonel Marker: I rise to a point of order. I cannot see how we can make two motions and accept different seconds on them. I think we should have one motion here and have it seconded once.

First he made a motion that we do this, and then he made a motion that we present it to the American Medical Association. Let's vote on the first one and then make the other motion.

The Speaker: He didn't make a motion for the second one. He just made that as a recommendation.

Colonel Marker: You asked for a second the second time, did you not?

The Speaker: No, I asked for a second on the first.

Colonel Marker: All right.

The Speaker: Any further discussion? All those in favor of the motion signify in the usual manner; contrary. *The motion is carried.*

I do think, though, Dr. Bernard, your recommendation, if it is going to be effective, should require a motion that the members of our delegation present this to the American Medical Association.

Dr. Sternberg: Mr. Chairman, I *make a motion* to that effect.

*The motion was regularly seconded, put to a vote, and carried.*

The Speaker: We shall now have the report of the Maternal and Child Health Committee.

Dr. Farnsworth: Mr. Speaker, your Committee

on Maternal and Child Health found it impossible to have a supplementary report for your first meeting of the House of Delegates on Wednesday night. We met yesterday, however, and wish at this time to present the following report:

"Whereas, the Iowa State Medical Society, at its regular annual meeting in 1943, in a spirit of patriotic cooperation, approved participation of its members in the EMIC program developed by the Children's Bureau for the emergency care of the wives and children of certain enlisted personnel of the armed forces, even in spite of the lack of any evidence that the profession of Iowa was not giving adequate medical care, under existing provisions, to any members of those groups; and

"Whereas, the regulations subsequently developed by the Children's Bureau for carrying out this program violate established principles of the traditional physician-patient relationship and of governmental assistance to the dependents of servicemen; therefore, be it

"RESOLVED, that:

"1. The Iowa State Medical Society reaffirm its continued sense of obligation to provide reasonable medical care for such dependents and its interest in their welfare; and

"2. The Iowa State Medical Society instruct its officers and committees and urge its members to work through available legal and legislative channels for the revision of the Children's Bureau regulations in order to remove the following chief obstacles to the harmonious cooperation of the profession of Iowa with the Children's Bureau in implementing the EMIC program:

"a. To cease direct payment to the physicians for services rendered, and to substitute therefor a system of allotment or subsidization, such as prevails in all other phases of governmental assistance, to the end that the third party may be eliminated from the financial consideration involved in the provision of medical care;

"b. To eliminate the regulatory provision which demands that the recipient of such governmental aid accept all or none of the offered financial assistance. In other words, to separate professional attention from hospitalization and other ancillary services so that the individual wife or mother may apply for help in the area where actual need exists, i.e., for hospitalization or medical services, or both, as she may desire;

"c. To make it possible for these wives and children to receive the type of care which they desire, rather than to be forced into a pattern designed by a governmental agency, by removing the restriction that the uniform sum received from the Children's Bureau must be the total compensation paid the physician; and

"d. To liberalize the entire program to conform to the traditions of a free and democratic people who object to regimentation of their lives even under the guise of paternalistic benevolence; and be it

"FURTHER RESOLVED, that these constructive suggestions be presented to our Iowa representatives

in the Congress of the United States, and be made the basis of our efforts to have the present controversial regulations of the Children's Bureau in connection with the EMIC program revised in the interests of greater harmony between the physician and the Bureau, and of the maintenance of sound democratic principles."

I move the acceptance of this report.

*The motion was seconded.*

Dr. Woods: Mr. Speaker, I think this report is one of the best reports that could possibly be made in existing circumstances, but I still feel that we are right at the threshold of one of the most fundamental things that has ever been presented to the medical profession. Fitzgibbon of Oregon presented a resolution before the House of Delegates of the American Medical Association last year which incorporated everything we have in this resolution and, without much discussion, that resolution was adopted by the House of Delegates of the American Medical Association.

The fundamental thing in this resolution, the fundamental thing in the resolution as presented by Fitzgibbon, was that the third party shall not enter into the relationship of patient and doctor. We are going to get nowhere with this; we are going right on, and the Children's Bureau will continue to dictate to the doctors of Iowa. This is an appeasement. I wish I had (I don't suppose the Secretary has it) that little placard sent out by the Children's Bureau, which advised all the wives of servicemen belonging to the lower four groups that all they had to do was to present this little slip to the doctor and they would get free medical care.

Now, gentlemen, we can talk about the tyranny of George III. We can talk about the appeasement at Munich. We can talk about the appeasement of Japan, when we sent scrap iron and high-test gasoline to shoot hell out of the Chinese and then later to kill our own boys. There is just as much danger in this thing, there is just as much appeasement in it as in anything I have enumerated. I continue to feel just as I did the other night. Two courses are open to us. We can go ahead with appeasement, we can permit the nose of the camel under the tent, and a year from now it will be under it even more, and we will be told what we can do and can't do.

I want to congratulate this committee. As long as we are willing to accept and abide by a method of appeasement, nothing could be better. But I want to tell you that a more subtle, insidious thing has never come to the medical profession than the fundamental principle of this. While I suppose I shall vote for the acceptance of this report, I do so feeling as I do.

The Speaker: Is there any further discussion? If not, we shall proceed to vote on the motion. All those in favor of the motion signify in the usual manner; contrary. *The motion is carried.*

Dr. Farnsworth: Mr. Speaker, I move that the delegates to the American Medical Association this year be instructed to take with them a copy of this resolution and present it to the delegates of the

American Medical Association as they see fit, or as the need may arise.

*The motion was seconded, put to a vote, and carried.*

The Speaker: Is there any report from any other committee?

Colonel Marker: I think this matter on which we have just voted is important enough to be presented to our legislators in Washington. I move, then, that we send a delegation of two to meet with our representatives and tell them what we think about this. We can afford to do it. I think we should do it. I think we will get more action that way than if we just send it to them individually.

*The motion was regularly seconded.*

The Speaker: You have heard Dr. Marker's motion that we send two delegates to Washington to meet with our legislative representatives there next week.

Dr. Fay: Mr. Speaker, doesn't this bill come up on the twenty-seventh of April?

The Secretary: There is a hearing on it on the twenty-seventh.

Dr. Fay: That is the one where the other state societies are having representation. That is what we want.

Dr. Bernard: That is correct.

Dr. Sternberg: I wish to *amend* that motion to the effect that the Chair appoint the committee and the Trustees be authorized to pay their expenses.

The Speaker: How many?

Dr. Sternberg: Two.

The Speaker: Do you accept that?

Colonel Marker: Yes.

The Speaker: You have heard Dr. Sternberg's amendment.

Dr. Fay: If you pass that motion, the Trustees have to follow out the idea of paying expenses if, in their wisdom, they think it is the right thing to do, and they will. You don't need a motion on that part.

Dr. Sternberg: I withdraw that part, but I still think the Chair should appoint that committee. The amendment is that the Chair be authorized to appoint that committee.

*The amendment was seconded.*

Dr. Woods: I want to call the attention of the House to the fact that this is the second time the Chairman of the Board of Trustees has told us that the House can't instruct the Board of Trustees how to spend this money.

Dr. Fay: That is right. That is governed by the Constitution and By-Laws of your Society.

The Speaker: Will you please read what you have?

Executive Secretary McCord: The motion was made that we send two delegates to Washington to meet with our Congressional representatives there in regard to the resolution of the Committee on Maternal and Child Health. That motion was seconded.

Then it was amended, and the amendment was seconded, that the Chair appoint these two men.



The Speaker: I understand the Board of Trustees will pay their bills. Is that right?

Dr. Fay: They will.

The Speaker: We shall vote on the amendment. Any further discussion on the amendment? If not, all in favor signify in the usual manner; contrary. *The amendment is carried.*

We shall now vote on the motion as amended. Any discussion? All those in favor of the motion as amended signify in the usual manner; contrary. *The motion as amended is carried.*

The Speaker: Any other committee reports? If not, we shall proceed at this time to vote on the proposed change in the By-Laws. Will you read that change?

Executive Secretary McCord: I don't have the exact wording of that change in the By-Laws but it deals with that section of the By-Laws which states that three or more names shall be placed before the House for President-Elect. The present rule now says that three names must be placed before the House. The change would read "two or more names" so that if the Nominating Committee sees fit to bring only two names before the House, that is all that is required. It may bring more if it wishes.

The Speaker: Any discussion on that proposed change? If not, we shall proceed to vote on the change.

Dr. McHugh: Do I understand they can bring in ten names?

The Speaker: Yes.

Dr. McHugh: What if they bring in ten?

The Speaker: The chances are they won't bring in ten.

*The motion on the change in the By-Laws was put to a vote and carried.*

The Speaker: The proposed change is adopted. Is there any other unfinished business?

Dr. C. C. Hall: What is the attitude of the State Society toward the National Physicians Committee and also the Lake County organization in Indiana?

The Speaker: Dr. Bernard, will you explain what has taken place?

Dr. Bernard: The American Medical Association has recognized the NPC and has given moral support to Mr. Pratt. Until this support is withdrawn, we in Iowa should support the NPC.

The Speaker: Any other new business?

Dr. H. D. Fallows: Dr. Woodward was just called out, and he left this with me: "I move that a special committee of the House of Delegates be created, to be known as the Postwar Planning Committee."

*The motion was regularly seconded.*

The Speaker: You have heard the motion to establish a Postwar Planning Committee. It has been seconded. Is there any discussion.

Dr. Bernard: When the state appointed a postwar planning committee, the medical profession was not represented, not even consulted. That is just one reason why we should have a committee and

let the Governor and a few of them know that we are still existing in Iowa.

The Speaker: Any other discussion? If not, we shall proceed to vote on the motion. All in favor of the motion signify in the usual manner; contrary. *The motion is carried.*

At this time I should like to read a telegram that the President received:

Wishing you a successful convention.

Sorry I can't be with you.

Frank P. Winkler.

Dr. Winkler has been seriously ill for the past few months.

President Woodward: I move that a message of greeting be sent to Dr. Winkler from the House of Delegates.

*The motion was regularly seconded.*

The Speaker: You have heard the motion to send the greetings of the House of Delegates to Dr. Winkler. It has been seconded.

The Secretary: Mr. Speaker, I should also like to send that telegram to Frank Fuller, Past President of the State Society, who has been seriously ill; also to Dr. Barnett of Atlantic and Dr. Boice of Washington, both of whom are ill.

The Speaker: Will you accept Dr. Parker's recommendation as a part of your motion?

President Woodward: Yes.

*The motion was put to a vote and carried.*

The Speaker: Any further new business?

Dr. Suchomel: Mr. Speaker, we are going to have a session next year, aren't we?

The Speaker: Yes, sir, we were coming to that later. I wanted to finish the committee reports first. The Secretary tells me that the meeting place was determined two years ago by a motion that we would meet for the duration in Des Moines, in a two-day session.

Dr. James C. Hill: May I say a word about the Cancer Committee at this time? As you know, the Cancer Committee has been having a little difficulty. The Women's Field Army, headed by Mrs. O'Brien, did not conduct a very active campaign for contributions in its educational program. We now have a bit of good news. A mail soliciting campaign was carried on this spring, and I am told that during the last four, five, or six weeks about eighteen or nineteen hundred dollars has come in to assist in the cancer educational program. The gratifying piece of news is that the medical profession of this state is now cooperating. I might say to you that that has been the plaint of most of the people who have been interested in the cancer educational program the last few years; but now the medical profession has come through and, really, within the last four or five weeks, the medical profession of this state has contributed about \$800 for the cancer program. For this we are indeed grateful to all of you and hope for a happy return next year.

The Speaker: The Secretary will now read the committee appointments.

The Secretary:

## COMMITTEE ON CONSTITUTION AND BY-LAWS

J. H. Henkin, Sioux City, Chairman

W. L. Alcorn, Washington

R. F. Luse, Clinton

## FINANCE COMMITTEE

E. C. McClure, Bussey, Chairman

A. S. Bowers, Orient

F. G. Ober, Burlington

## MEDICAL ECONOMICS COMMITTEE

Unchanged

## COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

M. E. Barnes, Iowa City, Chairman

F. A. Hennessy, Calmar

A. A. Johnson, Council Bluffs

## MEDICOLEGAL COMMITTEE

Unchanged

## COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Unchanged

## BALDRIDGE-BEYE MEMORIAL COMMITTEE

Unchanged

## FRACTURE COMMITTEE

Unchanged

## HISTORICAL COMMITTEE

Unchanged

## COMMITTEE ON MATERNAL AND CHILD HEALTH

Unchanged

## MEDICAL LIBRARY COMMITTEE

Unchanged

## MILITARY AFFAIRS COMMITTEE

J. G. Macrae, Creston, Chairman

E. P. Weih, Clinton

F. G. Murray, Cedar Rapids

## PUBLIC RELATIONS COMMITTEE

Unchanged

## SCIENTIFIC EXHIBITS COMMITTEE

Unchanged

## WOMAN'S AUXILIARY ADVISORY COMMITTEE

Unchanged

## COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS

R. D. Bernard, Clarion, Chairman

M. I. Olsen, Des Moines

I. N. Crow, Fairfield

L. R. Woodward, Mason City

J. A. Thorson, Dubuque

M. C. Hennessy, Council Bluffs

Fred Sternagel, West Des Moines

## CHAIRMAN, SURGICAL SECTION

G. V. Caughlan, Council Bluffs

## CHAIRMAN, MEDICAL SECTION

H. M. Korns, Iowa City

## CHAIRMAN, EYE, EAR, NOSE AND THROAT SECTION

W. H. Maloy, Shenandoah

The Speaker: What is your pleasure with these committee appointments?

Secretary Parker: I *move*, Mr. Speaker, they be approved.

*The motion was regularly seconded, put to a vote and carried.*

The Speaker: If there is nothing further for the good of the Society, a motion to adjourn is in order.

Dr. C. A. Henry: I should like to call the attention of the House of Delegates to the proposed membership of Dr. H. L. Stevens of Ottumwa. There has been some confusion in our Society about whether he would be eligible. He has practiced medicine for fifty years, and he has been a member of our Society for thirty years but not consecutive years. He was there a few years and then away for a few years, but he is back now. It seems to me he is eligible for election, and a year is a long time for a man to wait to wear the badge, once he has been fifty years in practice. I propose, if it is in order, that he be accepted for life membership.

Executive Secretary McCord: Dr. Henry spoke to me about this Wednesday night. We haven't the records at the hotel to check the thirty-year membership. They do not have to be consecutive years. If he has been a member for thirty years, he is eligible, no matter whether he was a member for a straight thirty years or not. If you could vote that life membership be granted provided he has been a member for thirty years, then we could accept it, but we haven't had any way of checking here.

The Speaker: What is your pleasure with that?

Dr. Suchomel: I *move* that life membership be granted if he has been a member for thirty years.

*The motion was regularly seconded, put to a vote and carried.*

*Upon motion regularly made and seconded, the meeting adjourned at nine-fifteen o'clock.*

## MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

Meeting of the Board of Trustees  
May 28, 1944

The Board of Trustees of the Iowa State Medical Society met in the central office Sunday afternoon, May 28, 1944, with the following persons present: Trustees Oliver J. Fay, John I. Marker and Walter A. Sternberg; Secretary Robert L. Parker; President-elect Ransom D. Bernard; Dr. Martin I. Olsen and Dr. John W. Billingsley.

The meeting was called to order at two p. m.; minutes were read and approved; bills were authorized; publication of a roster of members in the July JOURNAL was approved; several requests for expenditures outside of the usual routine were discussed; the inclusion of x-ray services in the contract of Hospital Service, Inc., was discussed thoroughly; and the future work of the new Committee on Medical Service and Public Relations was outlined by Dr. Bernard, who also gave a report on his recent trip to Washington. Meeting adjourned at four-thirty p. m.



# WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

*President*—MRS. JAY C. DECKER, Sioux City

*President-Elect*—MRS. SOREN S. WESTLY, Manly

*Secretary*—MRS. ALLEN C. STARRY, Sioux City

*Treasurer*—MRS. ARTHUR E. MERKEL, Des Moines

## ANNUAL REPORT OF THE COMMITTEE ON LEGISLATION

The Legislative Committee has cooperated with the Public Relations Committee in its efforts to keep an alert and intelligent membership on the current issues in Congress in regard to health and medicine. Some excerpts from the National Legislative Bulletin have been published in the JOURNAL from time to time.

Information was sent to each member informing her of the provisions of the Wagner-Murray Bill, House File 1161. She was asked to inform herself and in turn to pass on this information to the lay public.

Three letters were mailed to members in conjunction with the Public Relations Committee and also a questionnaire to take a poll of what each doctor's wife is doing in regard to the bill. Thirteen answers were received.

Talks to laymen.....	19
Speakers scheduled for lay organizations..	6
Gave program material.....	1
Talked to club members.....	3
Sent literature to husband's patients.....	2

Our president has done a great deal of work and study on this subject and has helped to mould public opinion throughout the state and I wish to thank her for her interest and cooperation.

Mrs. J. A. Downing, Chairman

## REPORT OF THE COMMITTEE ON PUBLIC RELATIONS

The Committee cooperated with the Legislative Committee in presenting information on the Wagner-Murray-Dingell Bill. Three joint letters and a reprint of Dr. R. D. Bernard's editorial, the pamphlet prepared by the National Physicians Committee, a copy of Ding's cartoon, "When the Government Socializes Medicine," and the kit prepared by the Steering Committee were sent to all Auxiliary members.

The Committee offered its services to the Nursing Council for War Services in promoting the United States Cadet Nurse Corps project. Some posters were distributed and an article about the project was published on the Woman's Auxiliary news page of the JOURNAL.

Two articles on Red Cross activities also were published in the JOURNAL—Red Cross Volunteer Dieticians and the Home Nursing Service in Polk County.

At the request of Dr. W. W. Bauer, Director of the American Medical Association Bureau of Health Education, the Committee distributed posters announcing the radio series *Doctors At War*. The State Federation of Women's Clubs, the State Parent-Teachers Association, and the Radio Council were asked to cooperate and give their support in the publicity of this program.

Your chairman reviewed "Ambassadors in White," the story of American tropical medicine by Charles Morrow Wilson, for four women's organizations in Des Moines.

All Auxiliaries and their members are devoting much time to discussions of the Wagner-Murray-Dingell Bill, Red Cross activities, sewing in hospitals, occupational therapy, the equipping of soldiers' hospitals, the USO centers, and the Women's Field Army.

Mrs. R. C. Doolittle, Chairman

## ANNUAL REPORT OF PRESS AND PUBLICITY

Our special duty has been conducting "The Woman's Auxiliary News in THE JOURNAL OF THE IOWA STATE MEDICAL SOCIETY. We have printed over 70 articles and news items with frequent quotations from *The Bulletin*, *Hygeia*, and other sources.

The annual report with a complete file of "The News" has been sent to the national chairman of Press and Publicity.

Sixty letters have been written in the interest of "The News," fifteen of which were to county auxiliary presidents with instructions to be turned over to the person in charge of Press and Publicity.

Ten posters advertising the radio program, *Doctors at War*, were placed in public institutions.

Acting as *Hygeia* chairman for the Dallas-Guthrie Auxiliary, that organization received honorable mention in the contest and was the only one in the state to register.

We made five addresses informing about one hundred people on details of the Wagner Bill and prepared a set of questions on the same bill which were used for a panel discussion at the Guthrie Center Woman's Club.

Chairman of Press and Publicity

## ANNUAL REPORT OF THE HISTORIAN

"History is but a record of successes and disappointments."

The year 1943-44 has marked the fifteenth milestone in the history of the Woman's Auxiliary to the Iowa State Medical Society. We have reached the period when we no longer measure our achievements by the past, but rather we trace our progress by the conscientious effort of officers and members alike as they endeavor to follow an ideal pattern for the future. Therefore disappointment need not be felt too keenly when, due to wartime conditions, the record reveals a decrease in membership and a somewhat curtailed program of activity.

The reports of state officers and committee members reflect worthwhile action in the interest of Auxiliary and a steadfast determination to make progress, perhaps slowly but securely.

A brief resume of the various reports shows: Counties organized, 15; membership, 316; attendance at annual meeting, 113; Nurses Loan Fund, \$368.26; loans made, none; *Hygeia* subscriptions, 94.

A survey of individual effort shows that countless hours have been given to the Red Cross, USO, nurses aide, home nursing, surgical dressings, nutrition instruction, sewing in hospitals, Women's Field Army, and the promotion of the United States Cadet Nurse Corps.

The "first object of the Auxiliary shall be, through its members, to extend the aims of the medical profession to all organizations which look to the advancement of health and education." A survey has been made and we find from a cross section of the membership that in Iowa the number of clubs to which the doctor's wife belongs averages four. It is therefore through these groups that the individual member has best served the medical profession by disseminating authentic health information and by presenting the true facts regarding the Murray-Wagner-Dingell Bill which is pending in Congress.

Since it is the duty of the historian to present a clear picture of all accomplishments, I am asking that I may be given the privilege of making further additions from some of the reports at the close of the meeting.

Mrs. W. A. Seidler, Historian

## ANNUAL REPORT OF THE BULLETIN COMMITTEE

To date the Bulletin Committee has thirteen subscriptions to *The Bulletin* to report.

A great many letters have been written but the response has not been entirely satisfactory. *The Bulletin* has much splendid material published by the Woman's Auxiliary to the American Medical Association and I should again like to urge all officers and members of standing committees to make use of this information.

*The Bulletin* is published four times a year and the subscription price is \$1.00.

Mrs. M. J. Moes, Chairman

## ANNUAL REPORT OF HYGEIA COMMITTEE

I present the following report for *Hygeia* from the files of the American Medical Association from May 1, 1943, to April 10, 1944, by counties:

Cass .....	1
Dallas-Guthrie .....	33
Dubuque .....	22
Madison .....	1
Polk .....	37

I also posted the placard, Doctors at War, in every town in my county.

Mrs. I. K. Sayre, *Hygeia* Chairman

## MEETING OF THE POLK COUNTY AUXILIARY

The Woman's Auxiliary to the Polk County Medical Society met at Younkers Tea Room May 19, 1944. Miss Mary Stork, public health nurse, spoke of War-time Problems in Public Health Nursing.

Members of the Polk County Auxiliary sew once a week in the various Des Moines hospitals. They serve the first and third Mondays of each month at the USO; the members furnish food and serve during the afternoon. They meet the first and third Fridays at the Red Cross rooms where they roll bandages.

Mrs. M. A. Royal, Secretary

## MEETING OF THE SIOUX MES-DAMES

The Sioux Mes-Dames met for a luncheon at the Warrior Hotel, Sioux City, June 8, 1944. Two new members, Mrs. D. B. Blume and Mrs. W. R. Blume, brought the total attendance to seventeen.

Mrs. Roy C. Crowder, president, presided, promoting an enthusiastic discussion for progress in new projects. Mrs. Starry, state secretary, reminded the members that their group, the Sioux Mes-Dames, was the first organized auxiliary in the state. This was believed to be another reason for the members to offer their services in all war projects where they might be of service.

The Community Center Committee gave a report on the excellent progress made on the new project, the Lanham Nursery. The nursery is located in the Irving school and is for children whose parents are working. The money has been provided by the government, and the Sioux Mes-Dames have been giving their time and volunteer services to provide necessary kitchen equipment such as towels, wash cloths, silverware and pans. This committee distributed sewing on which each member worked during the business meeting.

It was voted to increase dues from \$1.00 to \$1.50 in order that the flower committee might properly remember sick members.

Mrs. R. H. McBride reported on the investigation of rooms for soldiers' wives and mothers. Due to the unavailability of rooms, the idea was abandoned.

Because of pride and delight in having two members as state officers this year, the September meeting will be a tea in honor of Mrs. Decker, state president, and Mrs. Starry, state secretary.

Mrs. E. H. Sibley, Secretary



## SOCIETY PROCEEDINGS

### Hardin County

The Hardin County Medical Society held its regular monthly meeting Friday, May 26, at 6:30 p. m. at the Princess Cafe in Iowa Falls. Arnold M. Smythe, M.D., of Des Moines was the guest speaker of the evening.

W. E. Marsh, M.D., Secretary

### Johnson County

The annual picnic of the Johnson County Medical Society was held Wednesday evening, June 7, at the home of Dr. and Mrs. George C. Albright in Iowa City.

### Louisa County

The May meeting of the Louisa County Medical Society was held Thursday evening, May 18, in Columbus Junction. Dinner was served to the doctors and their wives at the West Side Cafe, following which the ladies spent the evening at the home of Mrs. James W. Pence and the doctors held their business meeting in the office of Dr. Frank A. Hubbard. Officers elected to serve during the ensuing year are Dr. James W. Pence of Columbus Junction, president; Dr. Thomas L. Eland of Letts, vice president; and Dr. Leslie E. Weber of Wapello, secretary and treasurer.

### Sac County

Members of the Sac County Medical Society met Thursday evening, May 18, at the Coffee Shop in Sac City. The scientific program consisted of an address on Electroencephalograms by John H. Stalford, M.D., of Sac City.

### Scott County

The June meeting of the Scott County Medical Society was held Tuesday evening, June 6, at the Outing Club in Davenport. The meeting opened with a social hour at six o'clock and a buffet dinner was served at seven. A short business session was held following the dinner.

L. J. Miltner, M.D., Secretary

### Iowa and Illinois Central District Medical Association

At the annual meeting of the Iowa and Illinois Central District Medical Association, which was held at the Black Hawk State Park in Rock Island, Illinois, Thursday, May 25, the following officers were elected: Dr. Paul P. Youngberg of Moline, president; Dr. Glen W. Doolen of Davenport, vice president; Dr. James Dunn of Davenport, secretary; and Dr. Florens E. Bollaert of East Moline, Treas-

urer. Censors elected for two years are Dr. Walter E. Foley of Davenport and Dr. Harrison M. Gibson of Moline.

### PERSONAL MENTION

Dr. Earl C. Montgomery, who has practiced in Atlantic during the past twenty-three years, has moved to Omaha, Nebraska, where he will be associated with Drs. Harold Gifford and William H. Stokes, eye, ear, nose and throat specialists.

Dr. Frederick H. Lamb of Davenport spoke before the Davenport Contemporary Club at its annual dinner meeting at the Outing Club Tuesday evening May 23. The history of compulsory sickness insurance abroad and the agitation to bring it about in the United States was reviewed by Dr. Lamb.

Dr. John W. Donnell, who has not been in practice during the past year because of his health, has now returned to Hudson and entered the active practice of medicine. Dr. Donnell resided in Oelwein after giving up his practice in Hudson a year ago.

### DEATH NOTICES

Brandt, Glenn A., of Shellsburg, aged seventy-two, died June 8 of injuries received when his car was struck by a freight train. He was graduated in 1901 from Keokuk Medical College, College of Physicians and Surgeons, and at the time of his death was a member of the Benton County and Iowa State Medical Societies.

Dimond, Charles A., of Keokuk, aged seventy-four, died June 11 following an illness of several weeks. He was graduated in 1903 from Keokuk Medical College, College of Physicians and Surgeons, and at the time of his death had long been a member of Lee County and Iowa State Medical Societies.

Van Metre, Edward Joseph, of Tipton, aged eighty-three, died June 16 following a long illness. He was graduated in 1886 from Rush Medical College, and at the time of his death had long been a member of the Cedar County and Iowa State Medical Societies.

Werndorff, Karl Robert, of Council Bluffs, aged sixty-six, died suddenly May 28 of a heart attack. He was graduated in 1902 from Medizinische Fakultät der Universität, Wein, and at the time of his death was a member of the Pottawattamie County and Iowa State Medical Societies.

# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**GASTRO-ENTEROLOGY**, Volume II, Intestines and Peritoneum—By Henry L. Bockus, M.D., professor of gastro-enterology, University of Pennsylvania Graduate School of Medicine. W. B. Saunders Company, Philadelphia, 1944. Price, three volumes and separate desk index, \$35.00.

**CLINICAL LECTURES ON THE GALLBLADDER AND BILE DUCTS**—By Samuel Weiss, M.D., clinical professor of gastro-enterology, New York Polyclinic Medical School and Hospital; gastro-enterologist, Jewish Memorial Hospital, New York; consulting gastro-enterologist, Beth David Hospital, New York, Long Beach Hospital, Long Island, etc. The Year Book Publishers, Inc., Chicago, 1944. Price, \$5.50.

**HANDBOOK OF NUTRITION**, A Symposium prepared under the auspices of the Council on Foods and Nutrition of the American Medical Association. American Medical Association, Chicago, 1943. Price, \$2.50.

**SMALL COMMUNITY HOSPITALS**—By Henry J. Southmayd, Director, Division of Rural Hospitals, The Commonwealth Fund; and Geddes Smith, Associate, The Commonwealth Fund. The Commonwealth Fund, New York, 1944. Price, \$2.00.

**ALLERGY IN PRACTICE**—By Samuel M. Feinberg, M.D., associate professor of medicine and chief of the division of allergy, Northwestern University Medical School; president, American Association for the Study of Allergy, 1942-1943; with the collaboration of Oren C. Durham, chief botanist, Abbott Laboratories. The Year Book Publishers, Inc., Chicago, 1944. Price, \$8.00.

**FEMALE ENDOCRINOLOGY**—By Jacob Hoffman, M.D., demonstrator in gynecology, Jefferson Medical College; pathologist in gynecology, Jefferson Hospital; formerly research fellow in endocrinology and director of the Endocrine Clinic, Gynecological Department, Jefferson Hospital, Philadelphia. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

**SYNOPSIS OF NEUROPSYCHIATRY**—Lowell S. Selling, M.D., director, Psychopathic Clinic, Recorder's Court, Detroit, Michigan; associate attending neuropsychiatrist, Eloise Hospital; adjunct attending neuropsychiatrist, Harper Hospital. The C. V. Mosby Company, St. Louis, 1944. Price, \$5.00.

**INDUSTRIAL OPHTHALMOLOGY**—By Hedwig S. Kuhn, M.D., Hammond, Indiana. The C. V. Mosby Company, St. Louis, 1944. Price, \$6.50.

## BOOK REVIEWS

### APPLIED DIETETICS

#### The Planning and Teaching of Normal and Therapeutic Diets

By Frances Stern, chief of Frances Stern Food Clinic, The Boston Dispensary; assistant in medicine, Tufts College Medical School; special instructor in dietetics in social service, Simmons College, The School of Social Work; associate in nutrition, Simmons College School of Home Economics. Second edition. The Williams & Wilkins Company, Baltimore, 1943. Price, \$4.00.

Books dealing with dietetics are many, but this second edition of Miss Stern's book is unique. The normal diet is emphasized and special diets are outlined as modifications. Stress is placed on environmental factors as they influence the patient and his diet. The ideal educational program for all patients in normal and therapeutic diets is discussed fully.

The major portion of the book is in tabular form. Charts of all food constituents and their sources are listed, also equivalents in foods. In this respect the text is excellent reference material. Easy to follow and very complete are dietary outlines for the most frequently used therapeutic diets, such as obesity, colitis, liver disorders, and the therapy of vitamin deficiencies with lists of foods equivalent in vitamin values. Three tabular summaries are given, each chart showing the normal diet and how it is varied for abnormal conditions. For a bird's-eye view of therapeutic diets, these last pages are ideal.

From the standpoint of normal nutrition and a survey of dietetics the book is valuable and practical as a reference source for public health workers, social workers, physicians; dietitians will find valuable the section of tables which simplify the computation of diets.

R. Y.

### The First Bound Supplement to the

#### PHARMACOPOEIA OF THE UNITED STATES OF AMERICA, Twelfth Revision

(First U.S.P. XII Bound Supplement—1943)

Prepared by the committee of revision and published by the Board of Trustees of the United States Pharmacopoeial Convention. Official from July 1, 1944. Mack Printing Company, Easton, Pennsylvania, 1944.

In writing a review of this text I can find no better words than to quote from its preface:

"An unusual advance in the practice of medicine through unprecedented expansion of research in medical science and its related sciences is properly reflected in the increased rapidity of Pharmacopoeial revision.

"This has been brought about in part by the demands of the war, which have stimulated intensive research programs by medical and pharmaceutical groups, especially those of the National Research Council. Further rapid advance and change in medical practice have been made possible through the close cooperation of our Allies, whereby first-hand experience has been made available in meeting the new and urgent health and medical problems resulting from this global war with its many new and unanticipated conditions.

"The Pharmacopoeia has been called upon repeatedly for assistance in the preparation of standards for new medicinal products, and has placed its facilities and scientific personnel constantly at the disposal of the Surgeons General of the Army, Navy, and Public Health Service, the National Institute of Health, the officials of the Food and Drug Administration, the National Research Council, the



War Production Board, and the Office of Price Administration, and has cooperated closely with the American Medical Association and its Council on Pharmacy and Chemistry. This has resulted in the necessity for the immediate recognition of many new substances. In addition, the shortage in the supplies of a number of U. S. P. items, brought about by the war, and either due to a lack of shipping facilities, discontinued relations with some countries, or a more urgent need for the products for food or munitions, has necessitated the temporary modifications of some U. S. P. XII formulas and specifications.

"Many of the urgent modifications in U. S. P. XII standards and some additions have been made effective in advance of the publication of this Supplement, through the release of 'U. S. P. XII Sheet Supplements.'"

Among the forty articles added to this supplement, there are found tests for purity and identification for the various sulfonamide derivatives, the use of which has grown very rapidly since the publication of U. S. P. XII. No doubt in future supplements there will be further additions to this rapidly growing work with chemicals.

Additional requirements for purity have been added to some of the proved vitamin products. One valuable requirement is that of labeling. "The vitamin content per ampul, capsule, or tablet, per cc. for injections, or per gram for natural oils or bulk solutions, shall be stated on the label in U. S. P. Units for vitamins A and D and in milligrams for each of the other vitamins."

Standards are also established for several endocrine products, which have varied greatly in strength and in therapeutic value. R. L. P.

### THE ARTHROPATHIES

A Handbook of Roentgen Diagnosis

By Alfred A. de Lorimier, Colonel, Medical Corps, United States Army, Commandant, The Army School of Roentgenology, Memphis, Tennessee. Formerly Director, Department of Roentgenology, Army Medical School, Washington, D. C. The Year Book Publishers, Inc., Chicago, 1943. Price, \$5.50.

This handbook is an excellent reference book with two forewords: One by B. R. Kirklin, Colonel, Medical Corps, Senior X-ray Consultant, S.G.O., U.S.A., and one by J. S. Speed, M.D., Professor of Orthopedic Surgery, University of Tennessee.

The book consists of two parts: Part I, The Peripheral Joints, which includes developmental malformations, osteochondropathies, group in which the changes are essentially concerned with mechanical stresses, group essentially concerned with protein reactions, toxins or actual bacterial invasion of the joint—the true arthritides, gout, neoplasms, and

miscellaneous disorders; Part II, The Joints of the Spine, includes developmental malformations, osteochondropathies, osteo-arthropathies, neuro-arthropathies, toxin arthropathies; Marie-Strümpell spondylitis, infectious arthritis, neoplasms, miscellaneous disorders, and general bibliography.

The volume has excellent anatomic illustrations, well marked, with a fine review of joint anatomy. The main body of the text is well illustrated with many excellent reproductions of radiographs which are well described and well marked. The author has also given a concise statement in reference to x-ray technic. Each subject is divided in such a manner that a concise and complete description is given and each subject is followed by an extensive and exhaustive bibliography.

An introduction of the author is best stated in the foreword by Colonel B. R. Kirklin in which he states: "Of the author himself, there is scarcely need to speak further. A valued contributor to radiologic literature, respected by his colleagues in the army and by civilian radiologists, designer of the radiologic field equipment now in use by the army, head of the Army School of Roentgenology, Col. de Lorimier holds a high place in the radiologic world. With such a background, the text that he has sponsored should have unusual merits and should serve its purpose with distinction."

This book would make a very ready reference book for any doctor's library. T. A. B.

### THE 1943 YEAR BOOK OF GENERAL MEDICINE

Edited by George F. Dick, M.D., J. Burns Amberson, Jr., M.D., George R. Minot, M.D., William B. Castle, M.D., William D. Stroud, M.D., George B. Eusterman, M.D. The Year Book Publishers, Chicago, 1943. Price, \$3.00.

This 1943 Year Book of General Medicine represents abstracts of the most outstanding papers in the various fields of general medicine published during the last year. The editors of the various sections are outstanding leaders in their respective fields and their supplemental editorial comment often enhances the value of these excellent abstracts. The departments are edited as follows: Infectious Diseases, George F. Dick; Diseases of the Chest, J. Burns Amberson, Jr.; Diseases of the Blood and Blood Forming Organs and Diseases of the Kidney, George R. Minot, William B. Castle; Diseases of the Heart and Blood Vessels, William D. Stroud; Diseases of the Digestive System and Metabolism, George B. Eusterman.

The importance of keeping abreast of the newer developments in general medicine is recognized by all. This handy volume is made to order for the busy practitioner whose time for study has been so much curtailed. A. L. J.

# MEMBERSHIP ROSTER

*of the*

## IOWA STATE MEDICAL SOCIETY

1944



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June 24, 1944



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 Ackerman, Emma M., Sioux City  
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 Adams, Leon P., Newton  
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 Anneberg, August R., Carroll  
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 Armstrong, Robert B., Ida Grove  
 Armstrong, William B., Ames  
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 Artis, George H., Cedar Rapids  
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 Bailey, John W., Des Moines  
 ★Bain, Clarence L., Corning  
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 ★Baker, Robert W., Davenport  
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 Balkema, Walter S., Sheldon  
 ★Baltzell, Winston C., Charles City  
 ★Balzer, Walter J., Davenport  
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 Barg, Egmont H., Mason City  
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 ★Barnes, Bernard C., Des Moines  
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 Barnett, Reu L., Atlantic  
 Barnett, Sylvester W., Cedar Falls  
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 Barrett, James W., Jr., Independence  
 Barrett, Sterling A., Waterloo  
 Barrett, Thomas M., Knoxville  
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 Barton, Edwin G., Ottumwa  
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 ★Bastron, Harold C., Red Oak  
 Bates, Floyd E., Indianola  
 ★Bates, Maurice T., Des Moines  
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 Baumeister, Carl F., Jr., Avoca  
 Baumeister, Charles F., Avoca  
 ★Baumgarten, Oscar, Earlville  
 Bay, Frank N., Albia  
 Beal, Arline M., Davenport  
 Beam, Watson W., Rolfe (L.M.)  
 Beardsley, David E., Cedar Rapids  
 Beardsley, Ralph W., Livermore  
 Beatty, Alexander S., Creston  
 Beatty, Edmund D., Mallard  
 ★Beatty, Howard G., Creston  
 ★Beaumont, Fred H., Council Bluffs  
 Beckman, Peter W., Perry  
 ★Beddoes, Morris G., Cascade  
 Beeh, Edward F., Fort Dodge  
 Bees, Louis E., Bennett  
 Behrens, George W., Eldridge  
 Belding, Leland J., Council Bluffs  
 Bell, Edward P., Pleasantville  
 Bellinger, Frank E., Council Bluffs  
 Bender, Henry A., Waterloo  
 Bendixen, Frederick C., LeMars  
 Benfer, Merrill M., Davenport  
 Bening, John F., Clarinda  
 Bennett, Andrew W., Iowa City  
 ★Bennett, Geoffrey W., Oskaloosa  
 ★Bergstrom, Albin C., Missouri Valley  
 Berkstresser, Charles F., Sioux City  
 Bernard, Ransom D., Clarion  
 ★Berney, Paul W., Cedar Rapids  
 Bernhard, Russell W., San Francisco,  
 California  
 Besser, Edward F., Newton  
 Besser, Edward L., Iowa City  
 Bessmer, William G., Davenport  
 Best, Gorden N., Council Bluffs  
 ★Bettler, Philip L., Sioux City  
 Beveridge, Thomas F., Muscatine (L.M.)  
 Beyer, Arthur E., Guttenberg  
 ★Bezman, Harry S., Traer  
 Bickert, Joseph N., Cedar Rapids  
 ★Bickley, Donald W., Waterloo  
 Bickley, G. G., Jr., Waterloo  
 ★Bickley, John W., Waterloo  
 Biebesheimer, George A., Reinbeck  
 Bierring, Walter L., Des Moines (L.M.)  
 Biersborn, Byron M., State Center  
 Bigelow, Charles T., Clinton  
 Bild, Elmer J., Ireton  
 Billingsley, John W., Newton  
 Binder, Frederick, Corning (L.M.)  
 Binford, William S., Davenport  
 ★Bird, Raymond G., Clarion  
 Birge, Richard F., Des Moines  
 Birney, Cleanthus E., Estherville  
 ★Bisgard, Carl V., Harlan  
 Bisgard, James A., Harlan  
 ★Bishop, James F., Davenport  
 ★Bjork, Floyd J., Keota  
 Black, Harold C., Des Moines  
 Black, John R., Jefferson  
 Blackburn, Guy R., Fort Madison  
 ★Blackman, Nathan, Clarinda  
 ★Blackstone, Martin A., Sioux City  
 Blaha, George A., Whitten  
 ★Blair, Fred L., Jr., Ponda  
 Block, Charles E., Davenport  
 ★Block, Lawrence A., Davenport  
 ★Block, Walter M., Cedar Rapids  
 Blome, Arthur L., Ottumwa  
 Blome, Glenn C., Ottumwa  
 Blong, Theodore E., Stacyville  
 Blum, Aloysius A., Wall Lake  
 ★Blum, Otto S., Waverly  
 Blume, Donald B., Sioux City  
 Bockoven, William A., Cresco  
 ★Boden, Herbert N., Truro  
 ★Boden, Worthey C., Davenport  
 ★Boe, Henry, Sioux City  
 Boice, Clyde A., Washington  
 ★Boice, Clyde L., Washington  
 ★Boiler, William F., Iowa City  
 Boland, Francis W., Kansas City, Kansas  
 ★Boller, Galen C., Traer  
 ★Bond, Thomas A., Des Moines  
 Bond, Thomas P., Des Moines (L.M.)  
 Bond, Wilbert W., Des Moines  
 ★Bone, Harold C., Des Moines  
 Bonnell, Frank S., Fairfield  
 Borgen, Donald L., Gowrie  
 Borre, Helge, Emerson  
 Borts, Irving H., Iowa City  
 Bos, Cornelius N., Oskaloosa  
 Bosch, Calvin C. F., Melvin  
 ★Bossingham, Earl N., Clarinda  
 Bossingham, Ottmer N., Clarinda  
 Boston, Burr C., Waterloo  
 Boulware, Lois, Iowa City  
 Bourne, Melvin G., Algona  
 Boyenmyer, DeVoe O., Ottumwa  
 Bowen, Frederick S., Woodburn  
 Bowers, Arthur S., Orient  
 Bowers, Bert A., Sioux City  
 ★Bowers, Clifford V., LeMars  
 Bowers, Henry W., Nevada  
 Bowie, Louis L., Marshalltown  
 Bowman, Fred A., Leon (L.M.)  
 Bowser, Will F., Davenport  
 ★Boyd, Eugene J., Iowa City  
 Boyd, Frank E., Colfax  
 Boyd, Julian D., Iowa City  
 Boyer, Edward H., Mason City  
 Boyer, Howard C., Council Bluffs  
 ★Boyer, Ulysses S., Davenport  
 Bradford, Clyde R., Des Moines  
 Bradley, Carl L., Newhall  
 ★Brandt, Glendor A., Shellsburg  
 Braunlich, George, Davenport  
 ★Brecher, Paul W., Storm Lake  
 Breen, Adrian L., Independence  
 Breniman, Eldridge M., Ackley  
 ★Brentan, Emanuel, Ottumwa  
 Breerton, Harold L., Emmetsburg  
 Brewster, Calvin O., Britt  
 ★Brewster, Edward S., Boone  
 Bridge, Barton B., Albert City (L.M.)  
 Bridgeman, Harry L., Knoxville (L.M.)  
 Bries, Frank J., Holy Cross  
 Brink, Raymond J., Ayrshire  
 Brinker, Marion H., Jefferson  
 ★Brinkhaus, Kenneth M., Iowa City  
 Brinkman, William F., Pocahontas  
 Brisbane, Royal E., Burbank,  
 California (L.M.)  
 Brittell, Chancey L., Chariton  
 ★Brobyn, Thomas E., Grinnell  
 Brock, Walter R., Sheldon  
 Broderick, Clarence E., Cherokee  
 ★Brody, Sidney, Ottumwa  
 Broghammer, Benjamin G., Cedar Rapids  
 ★Brown, Addison W., Des Moines  
 Brown, Arthur C., Council Bluffs  
 Brown, Bernice L. E., Iowa City  
 ★Brown, Douglas H., Davenport  
 Brown, Ernest L. W., Iowa Falls  
 Brown, Gates M., Dayton  
 Brown, George B., Clarion  
 Brown, Harold L., Sioux City  
 Brown, James C., Littleport  
 Brown, Kenneth R., Lamoni  
 ★Brown, Merle J., Davenport  
 Brown, Samuel J., Panora (L.M.)  
 ★Brown, Wayne B., Mount Pleasant  
 Brown, Willis E., Iowa City  
 Brownstone, Sidney, Clear Lake  
 Brubaker, Carl F., Corydon  
 Brubaker, John F. R., Hubbard  
 Bruce, James H., Fort Dodge  
 Bruechert, Henry N., Parkersburg  
 Brumer, Herbert B., Clinton  
 Brummitt, Charles F., Centerville  
 ★Bruner, Julian M., Des Moines  
 Brunk, Amos W., Prescott  
 Brunner, Walter J., Akron  
 Brush, C. Herbert, Shenandoah  
 ★Buchanan, John J., Milford  
 Buckley, Charles E., Blockton  
 Buckmaster, Raleigh A., Dunkerton  
 Bullock, Alfred H., Cushing  
 ★Bullock, Grant D., Washta  
 Bullock, William E., Lake Park  
 ★Bunch, Harold McK., Shenandoah  
 ★Bunge, Raymond G., Iowa City  
 Burbank, Dean S., Pleasantville  
 Burbank, Frank E., Pleasantville  
 ★Burbridge, Glen E., Logan  
 ★Burch, Earl S., Dayton  
 Burcham, Thomas A., Des Moines  
 ★Burdick, Francis D., Shenandoah  
 ★Buresh, Abner, Lime Springs  
 ★Burgeson, Floyd M., Des Moines  
 ★Burgess, Arthur W., Iowa Falls  
 ★Burke, Jerome C., Clinton  
 Burke, Thomas A., Mason City  
 Burke, Thomas J., Davenport  
 ★Burneson, Marvin W., Fort Dodge  
 ★Burnett, Francis K., Clarinda  
 Burnside, Raymond A., Des Moines  
 ★Burrroughs, Hubert H., Sioux City  
 Bursheim, Peder J., Des Moines  
 Bush, Earl B., Ames

- Butler, Margaret K., Fort Dodge  
Butterfield, Edwin J., Dallas Center (L.M.)  
Butterfield, Elwyn T., Dallas Center  
Butterfield, Rosabell A., Indianola (L.M.)  
★Butts, John H., Waterloo  
Butzke, Ernest J., Hampton, Virginia  
★Buxton, Otho C., Jr., Webster City  
Buzard, Irenarch S., Jefferson (L.M.)  
Byers, Albert G., Cogson  
★Byers, Walter L., Sheffield  
★Byrnes, Clemmet W., Dunlap  
Bywater, Joseph B., Grand Junction  
Calbreath, Lloyd B., Humeston  
★Caldwell, John W., Des Moines  
★Callahan, George D., Iowa City  
Campbell, Benjamin F., Burlington  
Campbell, Nathan, Yarmouth  
Campbell, Thomas R., Sioux Rapids  
★Campbell, Walter V., Oskaloosa  
Canfield, Herbert W., Baxter  
Cantrell, Carmi M., Lone Tree  
Cantwell, John D., Davenport  
★Carey, Edward T., Jr., Davenport  
Carey, Michael J., Council Bluffs  
Carlile, Amos W., Manning  
★Carlson, Elmer H., Muscatine  
Carlson, Frank G., Mason City (L.M.)  
Carney, Roscoe P., Davenport  
Carpenter, Frank, Reasnor  
Carpenter, Fred E., Newton  
★Carpenter, Ralph C., Marshalltown  
Carpenter, William S., St. Louis, Mo. (L.M.)  
Carr, Leslie L., West Union  
Carrer, Carl H., Des Moines  
Carson, Andros, Des Moines (L.M.)  
Carstensen, Albert B., Linn Grove  
★Cartwright, Forrest P., Grand Junction  
Carver, David C., Rockwell City  
Carver, Harry E., Earlham  
Carver, William F., Fort Dodge  
Cary, Walter, Dubuque  
Cash, William H., Lenox  
★Castell, John W., Fairfield  
★Castles, William A., Rippey  
Catterson, Leroy F., Oskaloosa  
Caughlan, Gerald V., Council Bluffs  
Cauley, Francis P., Anthon  
★Caulfield, John D., New Hampton  
Chadbourne, Theodore L., Vinton (L.M.)  
Chain, Leo W., Dedham  
Challed, Don S., Cedar Rapids  
Chamberlain, Lowell H., Des Moines  
Chambers, Charles L., Des Moines  
★Chambers, James W., Des Moines  
Chapler, Keith M., Dexter  
Chapman, Don W., Iowa City  
Chapman, Frederick J., Keokuk  
★Chapman, Robert M., Cedar Rapids  
Charlton, Thomas B., Clinton  
Chase, Sumner B., Fort Dodge  
Chase, Walter E., Rippey  
★Chase, William B., Jr., Des Moines  
Chase, William B., Sr., Des Moines  
Chenoweth, Charles E., Mason City  
★Chesnut, Paul F., Winterset  
Chester, Walter S., Albion  
Childs, Hal A., Creston (L.M.)  
Chilson, Alvin H., Plymouth  
Chisholm, Roderick B., Griswold  
Chittum, John H., Wapello  
Chittum, Josiah M., North Liberty  
Choate, Cora W., Marshalltown  
Christensen, Emil M., Garner  
Christensen, Eunice M., Iowa City  
★Christensen, Everett D., Grand Mound  
Christensen, John R., Eagle Grove  
★Christiansen, Charles C., Dixon  
Christiansen, John E., Durant  
Christy, Edgar, Glenwood (L.M.)  
Church, Ruth E., Washington  
★Clapsaddle, Dean W., Burt  
Clapsaddle, John G., Burt  
Clark, Frank H., Clarinda  
★Clark, George H., Oskaloosa  
Clark, Howard F., Stuart  
★Clark, James P., Estherville  
Clark, Oliver T., Keokuk  
Clark, Orson W., Ogden  
★Clark, Richardson E., Manchester  
Clark, Thomas D., Victor  
Clary, William H., Prescott (L.M.)  
Clasen, Henry W., Cedar Falls  
★Cleary, Hugh G., Fort Madison  
Closson, Charles L., Walker  
★Cmeya, Patrick M., Sioux City  
Cobb, Elliott C., Sioux City  
★Coddington, James H., Humboldt  
Cody, William E., Sioux City  
Coffin, Lonnie A., Farmington  
Cogan, Samuel, Mount Pleasant  
★Cogley, John P., Council Bluffs  
Cole, Elmer J., Woodbine (L.M.)  
Cole, Fern N., Iowa Falls  
Cole, Harold P., Thurman  
Cole, Julia, Ames  
Collesler, Charles C., Spencer  
Collins, Elmer E., Oskaloosa  
Collins, Harry A., Des Moines  
★Collins, Loren E., Estherville  
★Collins, Robert M., Council Bluffs  
Conaway, Aaron C., Marshalltown  
★Condon, Frank J., Centerville  
Conney, Roy M., Sergeant Bluff  
Connell, John, Des Moines  
Connell, Walter J., Dubuque  
Connolly, Edgar J., Dubuque  
Conner, Frank H., Nevada  
★Conner, John D., Nevada  
★Conzett, Donald C., Dubuque  
Cook, Clarence P., Des Moines  
Cook, John O., Woodward  
Cook, Kenneth G., Fairfield  
★Cook, Stuart H., Rock Rapids  
Cook, Walter R., Pisgah  
★Cooper, Clark N., Waterloo  
Cooper, Gladys A., Red Oak  
Cooper, James S., Burlington  
Cooper, J. Clark, Villisca  
★Cooper, Raymond E., Keokuk  
Cooper, Thaddeus C., Ogden  
★Cooper, Wayne K., Iowa City  
Corbin, Ray L., Des Moines  
Corbin, Sylvanus W., Corydon  
★Corcoran, Thomas E., Rock Rapids  
Cords, Charles H., Rudd  
★Corn, Henry H., Des Moines  
Cornell, Corwin S., Knoxville  
★Cornell, Dale D., Greenfield  
Corns, William, Tama  
★Coughlan, Charles H., Fort Dodge  
★Coughlan, Daniel W., Des Moines  
★Courter, Willard O., Springville  
★Cowan, John A., Sioux City  
Cowgill, Frank W., Nevada  
Cox, Elmer L., Moulton  
Crabb, George M., Mason City  
Craig, James A., Keosauqua  
Crain, Lewis F., Deep River (L.M.)  
Crain, Mattie M., Deep River (L.M.)  
Crane, Wendell P., Holstein  
Crawford, Jennings, Cedar Rapids  
Crawford, Robert H., Burlington  
Cressler, Frank E., Churdan  
Cretzmeyer, Charles H., Algona  
Cretzmeyer, Francis X., Emmetsburg  
Crew, Arthur E., Marion  
★Crew, Philip I., Marion  
Crew, William F., Greenfield (L.M.)  
Cronk, Charles H., Bloomfield (L.M.)  
★Cross, Donald L., Coon Rapids  
Crow, George B., Burlington  
Crow, Ira N., Fairfield  
★Crowder, Roy E., Sioux City  
★Crowell, Edwin A., Jr., Iowa City  
Crowley, Daniel F., Des Moines  
Crum, John R., Stanwood  
Crumpton, Robert C., Webster City  
Cruzen, John L., Barnes City  
★Culbertson, Robert A., St. Ansgar  
Cullen, Stuart C., Iowa City  
Cullison, Robert M., Brecksville, Ohio  
★Cunningham, John C., Dubuque  
Cunningham, Melvin B., Norwalk  
Cusick, George W., Davenport  
Cutler, Roy H., Little Sioux  
Dahl, Harry W., Des Moines  
Dahlbo, John E., Sutherland  
Dahlquist, Ralph M., Decorah  
Daily, Milton, Sioux City (L.M.)  
Dakin, Channing E., Mason City (L.M.)  
Dalbey, Glenn M., Traer  
Daly, James J., Decorah (L.M.)  
Danielson, May, Iowa City  
Danley, Royal C., Hamburg  
Darrow, Clarence A., Dubuque  
Daut, Walter W., Muscatine  
★Davey, William P., Emmetsburg  
Davidson, Thorald E., Mason City  
Davis, Arthur E., Seymour  
Davis, Charles M., Centerville  
★Dawson, Emerson B., Fort Dodge  
Dawson, Leon E., Des Moines  
Day, Charles S., Cedar Rapids  
Day, Philip M., Oskaloosa  
Day, William E., Clarksville  
★Dean, Abbott M., Council Bluffs  
Dean, Frank W., Council Bluffs (L.M.)  
Dean, Ray H., Washington (L.M.)  
Dean, William F., Osceola  
★de Bey, John G., Orange City  
★deCicco, Ralph, Des Moines  
★Decker, Henry G., Des Moines  
Decker, Jay C., Sioux City  
Deering, John S., Onawa  
DeGowin, Elmer L., Iowa City  
Demaree, Chester, Lacona  
Denney, Benjamin F., Britt  
Dennison, John C., Bellevue (L.M.)  
DeShaw, Earl H., Monticello  
Des Marias, Varina, Grundy Center  
★Deters, Donald C., Schaller  
Deur, Sherman J., Iowa City  
Devereux, Richard L., Sioux City  
Deweese, Frank L., Keokuk  
Dewey, Jay R., Schaller  
DeWitt, Charles H., Jr., Macedonia  
DeWitt, Franklin T., Nemaha (L.M.)  
★DeYarman, Kyle T., Morning Sun  
DeYoung, George M., George  
★DeYoung, Ward A., Glenwood  
Dickey, Claude G., Des Moines  
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Dierker, Bernard J., Fort Madison  
Dierker, Frank H., Fort Madison  
★Dimsdale, Lewis J., Sioux City  
Dingman, Marshal E., Urbana  
Ditto, Boyd L., Burlington  
Dixon, George L., Tucson, Arizona (L.M.)  
Doane, Grace O., Des Moines  
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Doering, Valentine T., Fort Madison  
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Doles, James W., Knoxville  
Dolmage, George F., Buffalo Center  
★Dolmage, G. Howard, Buffalo Center  
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Donlan, Eugene V., Clinton  
Donnell, John W., Hudson  
Donohoe, Anthony P., Davenport  
Donohue, Edmund S., Sioux City  
Donovan, William H., Iowa City  
Doolen, Glen W., Davenport  
Doolittle, Russell C., Des Moines  
Doornink, William, Orange City  
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Dorsey, Thomas J., Fort Dodge  
Doss, William N., Leon  
Downing, C. Dean, Waterloo  
★Down, Howard L., Sioux City  
Downing, James A., Des Moines  
★Downing, John S., Cedar Rapids  
Downing, Leroy M., Cedar Rapids  
Downing, Wendell L., LeMars  
Downing, William L., Moulton (L.M.)  
Downs, Vernon S., Ottumwa  
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★Dressler, John B., Ida Grove  
Driver, Richard W., Waterloo  
★Droz, A. Keith, Washington  
Dulin, Evelyn H., Iowa City  
Dulin, John A., Sigourney  
Dulin, John W., Iowa City  
Dulin, Tarana J. G., Sigourney  
Duling, Raymond J., Sioux City  
★Dulmes, Abraham H., Klemme  
Dunkel, George K., Fairfield  
Dunkelberg, Elmer I., Waterloo  
Dunlap, Wallace A., Des Moines  
★Dunn, Francis C., Cedar Rapids  
Dunn, James, Davenport  
Dusdieker, Stanley W., Des Moines  
Dutton, Dean A., Van Horn  
Dvorak, Joseph E., Sioux City  
★Dwankowski, Carl, Mount Pleasant  
Dwyer, Bernard B., Preston  
Dwyer, Robert E., Clinton  
Dyson, James E., Des Moines  
Earl, Warren Z., Sioux City  
Ebersole, Francis F., Mount Vernon  
Eddy, Alfred H., Aurelia  
★Edington, Frank D., Spencer  
Edmonds, Charles W., Sioux City  
★Edstrom, Henry, Dubuque  
★Edwards, Charles V., Council Bluffs  
★Edwards, James F., Ames  
★Edwards, Ralph R., Centerville  
Egan, Thomas J., Bancroft  
★Egbert, Daniel S., Atlantic  
Egermayer, George W., Elliott  
Eggleston, Alfred A., Burlington  
★Egloff, William C., Mason City  
Eiel, John O., Osage  
Eiel, Merrill O., Osage  
★Eigenfeld, Morris L., Burlington  
Einstein, Robert A. J., Iowa City  
Eischeid, Rudolph J., Dubuque  
Eland, Thomas L., Letts  
★Eller, Lancelot W., Kanawha  
★Elliott, Olin A., Des Moines  
★Elliott, Vance J., Knoxville  
★Ellis, Howard G., Des Moines  
★Ellison, George M., Clinton  
Ellyson, Charles W., Waterloo  
★Ellyson, Craig D., Waterloo



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★Elson, Veryl J., Danbury  
Elvidge, George, Perry  
Ely, Francis A., Des Moines  
Emerson, Edward L., Muscatine  
★Emmons, Marcus B., Iowa City  
Ennis, Harry H., Decorah  
Ensley, Bruce, Shell Rock  
★Entringer, Albert J., Dubuque  
Entz, F. Harold, Waterloo  
Epley, Verne C., Des Moines  
Ericsson, Martin G., Cedar Falls  
Ernst, Floyd W., New Albin  
Erskine, Arthur W., Cedar Rapids  
★Ervin, Lindsay J., Des Moines  
★Evans, Harold J., Davenport  
★Evans, John G., New Hartford (L.M.)  
★Evans, William I., Sac City  
Everall, Bruce B., Monona  
Evers, Lorraine B., Iowa City  
Eversmeyer, Benjamin E., Muscatine  
Everson, Gustave A., Rolfe  
Faber, Luke A., Dubuque  
Fagen, Rodney P., Des Moines  
★Fails, Charles S., Jr., Adel  
Fallows, Howard D., Mason City (L.M.)  
Farlow, Charles T., Farnhamville  
Farnham, Alfred J., Traer  
Farnsworth, Harold E., Storm Lake  
Farnum, Earl P., Sibley  
Faust, John H., Manson  
Fay, Oliver J., Des Moines  
★Fee, Charles H., Denison  
Fee, Knight E., Toledo  
Feightner, Robert L., Fort Madison  
Feller, Alto E., Fort Bragg, N. Carolina  
★Fellows, Joseph G., Ames  
Fellows, Liberty E., Newton  
Felter, Allan G., Van Meter  
Fenlon, Leslie K., Clinton  
★Fenton, Charles D., Bloomfield  
Fenton, Robert L., Centerville  
Ferlic, Rudolph J., Lake View  
Field, George A., Des Moines  
Field, Grace E. W., Elizabeth City, North Carolina  
Fields, Robert B., LaPorte City  
Fieseler, Walter R., Fort Dodge  
Files, Edward H., Cedar Rapids  
Fillenwarth, Floyd H., Charles City  
Finch, George H., Des Moines  
Findley, William J. K., Sac City (L.M.)  
★Fisch, Roman J., LeMars  
Fisk, Charlotte, Des Moines  
Fitzgerald, Joseph D., Sloan  
Fitzpatrick, Dennis F., Iowa City  
Flancher, Leon H., Des Moines  
★Flater, Norman C., Floyd  
★Flax, Ellis, Iowa City  
Fleischman, Abraham G., Des Moines  
Fletcher, Frederick W., Hinton  
★Flickinger, Roger R., Mason City  
Flocks, Rubin H., Iowa City  
★Floersch, Eugene B., Council Bluffs  
Floyd, Mark L., Iowa City  
Flynn, Charles H., Clarinda  
★Flynn, James R., Cedar Rapids  
★Flynn, Joseph E., Jr., Iowa City  
Foley, Fred C., Newell  
Foley, Walter E., Davenport  
Foltz, Eloise G., Perry  
Ford, Frank R., Wellsburg  
Fordyce, Frank W., Des Moines  
★Foss, Robert H., Remsen  
Foster, Jess W., Ankeny  
Foster, Morgan J., Cedar Rapids  
Foster, Samuel T., Adel  
Foster, Warren H., Clinton  
Foster, Wayne J., Cedar Rapids  
Foulk, Frank E., Des Moines  
★Fourt, Arthur S., Iowa City  
Fowler, Charles C., Lovilia  
Fowler, Willis M., Iowa City  
Fox, Charles I., Pella (L.M.)  
Fox, Ray A., Charles City  
Franchere, Cethwynd M., Mason City  
★Francis, Norton L., Iowa City  
★Frank, Louis J., Sioux City  
Frank, Owen L., Maquoketa  
Franklin, George W., Jefferson  
Fransco, Peter P., Ruthven  
Fraser, James B., Des Moines  
Fraser, John H., Monticello  
Frech, Raymond F., Newton  
Frederickson, Adolph R., Lansing  
Freligh, Clarence N., Waucoma  
French, Charles H., Cedar Rapids (L.M.)  
French, Royal F., Marshalltown  
French, Valiant D., Carson  
Frey, Harry, Fairfield  
★Fritchen, Arthur F., Decorah  
Fritschel, Godfrey C., Dubuque  
Fritz, Lafe H., Dubuque  
Fry, John L., Kalona  
Fuerste, Frederick, Dubuque  
Fuller, Frank M., Keokuk (L.M.)  
Fullerton, Oscar L., Redding (L.M.)  
★Fullgrabe, Emil A., Indianola  
Furgerson, Lee B., Waterloo  
Gaard, Rasmus R., Radcliffe  
★Galinsky, Leon J., Oakdale  
★Gallagher, John P., Oelwein  
Galloway, Milton B., Webster City  
Galman, James J., Hospers  
Galvin, Robert J., Oelwein  
Gambee, Eric J., Earling  
Gamble, Robert A., Madrid  
★Gamet, Elmo E., Lamoni  
Ganoce, James O., Ogden  
★Gantz, Albert J., Greenfield  
★Ganzhorn, Harold L., Mapleton  
Gardner, Harold O., Waterloo  
Gardner, John K., Lisbon  
Gardner, Paul E., New Hampton  
★Garlinghouse, Robert O., Iowa City  
Garside, Arthur A., Davenport  
Gasson, James H., Bedford  
Gauger, John W., Early  
★Gaukel, Leo A., Onawa  
Gaurer, James S., Fairfield  
Gearhart, George W., Springville  
★Gearhart, Merriam, Springville  
Geeseka, Otto A., Mount Pleasant (L.M.)  
Gelfand, Ben B., Sioux City  
Gelfand, Della G., Sioux City  
★George, Everett M., Des Moines  
Gerard, Russell S., Waterloo  
Gerken, James F., Waterloo  
Gernsey, Merrit N., Waverly  
Gerstman, Herbert, Marion  
Gessner, Frederick W., Dysart  
★Getty, Everett B., Primghar  
Gibbon, William H., Sioux City  
Gibson, Chelsea D., Lake View  
★Gibson, Douglas N., Des Moines  
Gibson, Paul E., Des Moines  
★Gibson, Preston E., Davenport  
Giles, Francis E., Cresco  
Giles, George C., Oakland  
Gilfillan, Bruce L., Keokuk  
★Gilfillan, Clarence D. N., Eldon  
★Gilfillan, George W., Bloomfield  
Gilfillan, Homer J., San Francisco, California  
Gillespie, Hamilton S., Sioux City  
Gillett, Francis A., Oskaloosa  
Gillies, Carl L., Iowa City  
Gillmor, Benjamin F., Red Oak  
Gingles, Earl E., Onawa  
Gittins, Thomas R., Sioux City  
★Gittler, Ludwig, Fairfield  
Givens, Hezekiah F., West Bend  
Glasscock, Thomas J., Hawarden  
★Glesne, Otto N., Fort Dodge  
Gleysteen, Derk J., Alton  
★Gleysteen, Rodney R., Alton  
★Gloeckler, Bernhard B., Mount Pleasant  
★Glomset, Daniel A., Des Moines  
Glomset, Daniel J., Des Moines  
★Goad, Robley R., Muscatine  
Goen, Edwin J., Charles City  
Goenne, William C., Davenport  
Goggin, John G., Ossian  
★Goldberg, Louie, Des Moines  
Goltry, Charles F., Russell  
Goodenow, Sidney B., Colo  
Goodrich, Joseph A., Des Moines  
★Gordon, Arnold M., Des Moines  
★Gorrell, Ralph L., Clarion  
Gottlieb, Jacques S., Iowa City  
Gottsch, Erwin J., Shenandoah  
Gould, George R., Conrad (L.M.)  
Gould, Isaac L., Pasco, Washington  
Gower, Walter E., Pocahontas  
★Graber, Harold E., Fairfield  
★Graeber, Frederick O., Des Moines  
Graening, Charles H., Waverly (L.M.)  
Graham, George W., Collins  
★Graham, James W., Sioux City  
Gran, Albert G., Storm Lake  
Grandinetti, Arthur F., Oelwein  
Grant, Cecil C., Cedar Falls  
Grant, John G., Ames  
★Graul, Amandus H., Denison  
Gray, Henry A., Keokuk  
Gray, Howard D., Des Moines  
Gray, John F., Melcher  
Gray, Ralph E., Eldora  
★Greek, Louis M., Des Moines  
Greene, James A., Houston, Texas  
Greenleaf, William S., Atlantic  
★Greenlee, Max R., Oskaloosa  
Greteman, Theodore J., Iowa City  
Griffin, Clark C., Jr., Vinton (L.M.)  
Griffin, Frank L., Baldwin  
Griffin, John M., Des Moines  
Griffin, Sarah M. F., Manson  
★Griffith, William O., Shelby  
Grimm, Peter G., Spirit Lake  
★Grinley, Andrew V., Rockwell City  
Groman, August, Odebolt (L.M.)  
Gross, Erwin G., Iowa City  
★Grossman, Milton D., Sioux City  
Grossman, Raymond S., Marshalltown  
★Grossmann, Edward B., Orange City  
Grothaus, Dell L., Delta  
Grubb, Merrill W., Galva  
Gunn, Ross E., Boone  
★Gurau, Henry H., Des Moines  
Gutch, Roy C., Chariton  
Gutch, Thomas E., Albia  
Hage, Martin M., Lake Mills  
Hagen, Edward F., Decorah  
★Haines, Diedrich J., Des Moines  
Haisch, Lily K., Dubuque  
★Hale, Albert E., Dougherty  
Hale, William M., Iowa City  
Hall, Bonnybel A., Maynard  
★Hall, Carl B., Dubuque  
Hall, Cluley C., Maynard  
Hall, Forest F., Webster City  
Halloran, William H., Audubon  
★Halpin, Lawrence J., Cedar Rapids  
Hamilton, Benjamin C., Jefferson (L.M.)  
Hamilton, Benjamin C., Jr., Jefferson  
Hamilton, Cecil V., Garner  
Hamilton, Harriett S., Council Bluffs  
Hamilton, Henry H., Cedar Rapids  
Hamstreet, Wilbur F., Titonka  
Hanchett, W. McKicken, Council Bluffs  
Hancock, John C., Dubuque  
Hands, Sidney G., Davenport  
Hankey, Daniel C., Council Bluffs  
Hansell, William W., Des Moines  
★Hansen, Fred A., Red Oak  
Hansen, Niels M., Des Moines  
Hansen, Robert F., Belmond  
Hansen, Robert R., Marshalltown  
★Hansen, Russell R., Storm Lake  
Hanske, Edward A., Bellevue  
Hanson, Frank H., Magnolia  
★Hanson, Laurence C., Jefferson  
★Hardin, John F., Bedford  
★Hardin, Robert C., Iowa City  
Hardwig, Oswald C., Waverly  
Harken, Conreid R., Osceola  
Harkness, Gordon F., Davenport  
Harman, Clarence, Whiting  
Harman, Dean W., Glenwood  
Harnagel, Edward J., Des Moines  
Harp, John F., Prairie City (L.M.)  
Harper, Edna K. S., Greenfield  
Harrington, Arlan F., Cedar Rapids  
Harrington, Raymond J., Sioux City  
Harris, Clinton E., Grinnell  
★Harris, Donald M., Sioux City  
★Harris, Grove W., Marshalltown  
Harris, Herbert H., Battle Creek  
Harris, Karl S., Phoenix, Arizona  
Harris, Ray R., Dubuque  
★Harris, Robert H., Mason City  
★Harrison, Glenn E., Mason City  
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★Hartley, Byron D., Mount Pleasant  
Hartman, Frank T., Waterloo (L.M.)  
★Hartman, Howard J., Waterloo  
★Hartung, Walter, Iowa City  
Hasek, Victor H., Cedar Rapids  
Hastings, John C., Elma  
Haugen, Albert I., Ames  
Haumeder, Maria E., New Hampton  
★Havlik, Aloysius J., Tama  
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Hawley, Olin B., Corning  
Hayek, John M., Des Moines  
★Hayne, Willard W., Paulina  
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Hazlet, Kenneth K., Dubuque  
Heady, Conda C., Bloomfield (L.M.)  
Heald, Clarence L., Sigourney  
Healy, Maurice A., Boone  
★Healy, Maurice J., Boone  
Heathman, Frank E., Pocahontas  
Hecker, Frederick A., Ottumwa  
★Hecker, John T., Cedar Rapids  
★Hedgecock, Lewis E., Hampton  
Heetland, Louis H., Sibley  
★Heffernan, Chauncey E., Sioux City  
Hegg, Lester R., Rock Valley  
Heilman, Ernest S., Ida Grove (L.M.)  
Heise, Carl A., Missouri Valley  
★Heise, Carl A., Jr., Missouri Valley  
★Heitzman, Paul O., Burlington  
Heles, John B., Dubuque  
Helgesen, Peter A., Lake Mills  
★Henderson, Lauren J., Cedar Falls  
★Henderson, Walker B., Oelwein  
Hendrickson, Alvin H., Sioux City  
Henely, Edmund, Nora Springs

- Henkin, John H., Sioux City  
 Hennes, Raphael J., Oxford  
 Hennessy, Felix A., Calmar  
 \*Hennessy, J. Donald, Council Bluffs  
 Hennessy, M. Charles, Council Bluffs  
 \*Henning, Garold G., Milford  
 Henry, Clyde A., Farson  
 Henry, Hiram B., Des Moines  
 Herman, John C., Boone  
 Hermesen, Paul J., Bronson  
 Hery, Peter M., Prairie City  
 \*Herrick, Thomas G., Gilmore City  
 Herrmann, Christian H., Jr., Amana  
 Herron, David A., Alta  
 Hersch, Thomas F., Cedar Rapids  
 \*Hersey, Nelson L., Independence  
 \*Hess, Ardo M., West Union  
 Hess, Howard R., Cedar Rapids  
 Hess, William C., Cresco  
 \*Hessin, A. Laurence, Iowa City  
 Heusinkveld, Henry J., Jr., Clinton  
 Hickenlooper, Carl B., Winterset  
 \*Hickerson, Luther C., Brooklyn  
 Hickman, Charles S., Centerville  
 \*Hicks, Wayland K., Sioux City  
 Hight, William B., Des Moines  
 Hill, Christine E., Council Bluffs  
 \*Hill, Don E., Clinton  
 Hill, James C., Newton  
 Hill, James W., Mount Ayr  
 Hill, Julia F., Pittsburgh, Pennsylvania  
 Hill, Lee F., Des Moines  
 Hills, Henry M., Lamoni (L.M.)  
 Hills, Robert A., Russell  
 Hinrichs, Robert G., Manson  
 \*Hobart, Francis W., Lake City  
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 Hoffman, Paul M., Tipton  
 Hoffmann, Alfred A., Waterloo  
 Hofmann, William P., Davenport  
 \*Hofstetter, George, Clinton (L.M.)  
 Hogle, William M., Keokuk  
 Holbrook, Francis R., Des Moines  
 Hollis, Edward L., Marengo  
 Holman, Henry D., Mason City  
 Holmes, Wilson W., Keokuk  
 Holtey, Joseph W., Ossian  
 Homan, Leo J., Oxford Junction  
 Hombach, Walter P., Council Bluffs  
 Hombach, William P., Council Bluffs  
 Hommel, Placido R. V., Elkader  
 \*Honke, Edward M., Sioux City  
 Hooper, Lester E., Indianola  
 Hope, Justin M., Washington, D. C.  
 Hopkins, David H., Glidden  
 Hornaday, William R., Des Moines  
 Horton, Vincent J., Calmar  
 Horsford, Horace F., Burlington  
 \*Hospodarsky, Leonard J., Ridgeway  
 Hotz, Edward J., Strawberry Point  
 \*Houlahan, Jay E., Mason City  
 \*Houlihan, Francis W., Ackley  
 Houlihan, Thomas J., Ida Grove (L.M.)  
 Householder, Harold A., Winthrop  
 Houser, Blanche W., Cedar Rapids  
 Houser, Cass T., Cedar Rapids  
 Houston, Bush, Nevada  
 Houvenden, John H., Laurens  
 \*Howard, Bruce F., Jewell  
 Howard, Fred H., Strawberry Point  
 Howard, Lloyd G., Council Bluffs  
 Howard, William A., West Burlington  
 \*Howard, William H., Decorah  
 Howe, Lysle C., Muscatine  
 Howell, Elias B., Ottumwa  
 Howland, Charles F., Des Moines  
 \*Hoyt, Charles N., Cedar Falls  
 Hubbard, Frank A., Columbus Junction  
 Hudek, Joseph W., Garnaville  
 Hudson, Jessie B., Hampton  
 \*Hughes, Robert O., Ottumwa  
 Hull, Henry C., Washington (L.M.)  
 Huntley, Charles C., Avoca  
 \*Hurevitz, Hyman M., Davenport  
 Huston, Daniel F., Burlington  
 Huston, Herbert M., Ruthven  
 \*Huston, Marshall D., Centerville  
 Huston, Paul E., Iowa City  
 Huston, Samuel W., Mount Pleasant  
 Hyatt, Charles N., Albion (L.M.)  
 \*Hyatt, Charles N., Jr., Humeston  
 Ihle, Charles W., Cleghorn  
 \*Ihle, Charles W., Jr., Cleghorn  
 Ingham, Paul G., Mapleton  
 Ingraham, David R., Sewal  
 \*Irish, Thomas J., Forest City  
 Irving, Noble W., Des Moines  
 \*Irwin, Ralph L., Iowa City  
 Isenberg, Bertice A., Lohrville  
 \*Ivins, Harry M., Santa Cruz, Cal. (L.M.)  
 Jackson, James M., Jefferson  
 Jackson, James S., Mount Pleasant  
 Jackson, Robert L., Iowa City  
 Jacoby, James A., Burlington  
 Jaenicke, Kurt, Clinton  
 \*James, Audra D., Des Moines  
 \*James, David W., Kamrar  
 James, Lora D., Fairfield  
 James, Peter E., Elkhorn  
 \*James, Roger A., Allison  
 Jameson, Robert E., Davenport  
 Janse, Phillip V., Algona  
 \*Jansonius, John W., Eldora  
 \*January, Lewis E., Iowa City  
 Jardine, George A., New Virginia  
 Jarvis, Fred J., Oskaloosa  
 Jarvis, Harry D., Chariton  
 Jay, Leon D., Waverly  
 Jeans, Philip C., Iowa City  
 Jeffries, Roy R., Waukon  
 Jenkins, George A., Albion  
 \*Jenkins, George D., Burlington  
 Jenkinson, Harry R., Iowa City  
 Jenks, Alonzo L., Jr., Des Moines  
 \*Jensen, Arnold L., Council Bluffs  
 Jensen, Arthur E., Humboldt  
 Jensen, Leroy E., Audubon  
 Jepson, William, Sioux City (L.M.)  
 Jerdee, Ingebrecht C., Clermont  
 Jessup, Parke M., Muscatine  
 Jinderlee, Joseph W., Cresco  
 \*Jirsa, Harold O., Cedar Rapids  
 Johann, Albert E., Des Moines  
 Johnson, Aaron Q., Sioux City  
 Johnson, Albert P., Sigourney (L.M.)  
 Johnson, Aldis A., Council Bluffs  
 Johnson, Chester H., Cherokee  
 Johnson, Clarence A., Coon Rapids  
 Johnson, George M., Marshalltown  
 Johnson, Glenn R., Ottumwa  
 Johnson, Harvey A., Atlantic  
 Johnson, J. A. William, Marshalltown  
 Johnson, Jonathan, Alden  
 Johnson, Melvin T., Lake Mills  
 Johnson, Norman M., Clarinda  
 \*Johnson, Robert J., Iowa Falls  
 \*Johnson, William A., Alden  
 \*Johnston, C. Harlan, Des Moines  
 Johnston, Florence D., Cedar Rapids  
 Johnston, George B., Estherville  
 Johnston, Harry L., Ames  
 Johnston, Helen, Des Moines  
 Johnston, Howard H., Hampton  
 Johnston, Kenneth L., Oskaloosa  
 Johnston, Thomas H., Spencer  
 Johnston, Wayne A., Dubuque  
 \*Johnstone, Alexander A., Keokuk  
 Jones, Cecil C., Des Moines  
 Jones, Charles L., Gilmore City  
 \*Jones, Clare C., Spencer  
 Jones, Harry J., Cedar Rapids  
 Jones, Henry D., Schleswig  
 Jones, Lewis H., Wall Lake (L.M.)  
 Jones, Thomas S., Waukegan  
 \*Jongewaard, Albert J., Jefferson  
 Jongewaard, Jeannette, Jefferson  
 Jordan, Carl F., Des Moines  
 Jordan, John W., Maquoketa  
 Jowett, John R., Clinton  
 \*Joyner, Nevill M., Fort Dodge  
 Joynt, Albert J., Waterloo  
 Joynt, Martin J., LeMars  
 Joynt, Michael F., Marcus  
 Judd, Addison L., Kanawha (L.M.)  
 Junger, Emil C., Soldier  
 Kaach, Harry F., Clinton  
 Kabrick, Ola A., Jackson, Minnesota  
 Kadel, Merl A., Tipton  
 Kahler, Hugo V., Reinbeck  
 \*Kanealy, John F., Iowa City  
 \*Kaplan, David, Sioux City  
 Kas, Thomas D., Sutherland  
 Kassmeyer, John C., Dubuque  
 \*Kast, Donald H., Des Moines  
 Katherman, Charles A., Sioux City  
 Kauffman, William A., Marshalltown  
 Kaufman, Ernest L., Ft. Atkinson  
 Keane, John L., Dubuque  
 Keech, Roy K., Cedar Rapids  
 Keefe, Patrick E., Sioux City  
 Keen, Burlin E., Des Moines  
 Keeney, George H., Mallard  
 \*Keislar, Henry D., Iowa City  
 Keith, Charles W., Strawberry Point  
 \*Keith, John J., Marion  
 \*Kelley, Edmund J., Des Moines  
 Kelley, Laurence E., Des Moines  
 \*Kelly, Dennis H., Des Moines  
 Kelly, Joseph I., Burlington (L.M.)  
 \*Kenefick, John N., Algona  
 Kennedy, Edward P., Swaledale  
 Kennedy, Elizabeth S., Oelwein  
 Kennedy, William C., Somers  
 Kepler, Earl C., Greene  
 Kern, Lester C., Waverly  
 Kerr, H. Dabney, Iowa City  
 Kerr, Johnston H., Akron  
 Kerr, William, Randolph  
 \*Kerr, William H., Hamburg  
 Kershner, Frank O., Clinton  
 Kersten, Ernest M., Fort Dodge  
 Kerwick, Joseph M., New Hampton  
 Kessel, George, Cresco (L.M.)  
 Kessell, James E., Des Moines  
 Kettel, John L., Waterloo  
 Kettelkamp, Enoch G., Monona  
 Keyser, Ralph E., Marshalltown  
 \*Kieck, Ernest G., Cedar Rapids  
 Kiesau, Frederick W., Postville  
 \*Kiesau, Milton F., Postville  
 Kiesling, Harry F., Lehigh  
 Kilgore, Benjamin F., Des Moines  
 Kimball, John E., West Liberty  
 \*Kimberly, Lester W., Davenport  
 King, David H., Batavia  
 \*King, Dean H., Spencer  
 King, Harold N., Hampton, Virginia  
 King, Oran W., Des Moines  
 \*King, Ross C., Clinton  
 Kingsbury, Charles L., Keokuk  
 Kingsbury, Earl L., Keokuk  
 Kirch, Walter A. W., Des Moines  
 Kirkegaard, Smith C., Estherville  
 Kitson, Walter W., Atlantic  
 Klein, John L., Muscatine (L.M.)  
 Klein, John L., Jr., Muscatine  
 Kleinberg, Henry E., Des Moines  
 Kline, Samuel, Sioux City  
 \*Klockslem, Roy G., Odebolt  
 \*Klok, George J., Council Bluffs  
 \*Kluver, Herman C., Fort Dodge  
 Knight, Benjamin L., Cedar Rapids  
 Knight, Edson C., Garwin  
 \*Knight, Russell A., Rockford  
 Knipe, James B., Armstrong  
 Knipfer, Robert L., Jesup  
 \*Knoll, Albert H., Dubuque  
 \*Knott, Peirce D., Sioux City  
 \*Knott, Robert C., Sioux City  
 Knowles, Fred L., Fort Dodge  
 Knox, James M., Cedar Rapids  
 Knudsen, Hubert K., Clinton  
 Koch, George W., Anaheim, California (L.M.)  
 \*Koehne, Frederick D., Audubon  
 Koeneman, Eugene O., Eldora  
 Koob, William R., Brayton  
 Kooker, Herman J., Loveland, Ohio  
 \*Koontz, Lyle W., Vinton  
 \*Korfmacher, Edwin S., Grinnell  
 Kornder, Louis H., Davenport  
 Korns, Horace M., Iowa City  
 Koser, Donald C., Cherokee  
 \*Kottke, Elmer E., Des Moines  
 \*Kraaker, Max, Davenport  
 Krause, Charles S., Cedar Rapids  
 Krejsa, Oldrich, Cedar Rapids  
 Krenning, Katherine S., Davenport  
 Krepelka, George E., Osage  
 Kreul, Dwight G., Davenport  
 Kriebbs, Frank J., Elkport (L.M.)  
 Kriebbaum, Horace T., Davenport  
 Krigten, Joe M., Sioux City  
 \*Krigsten, William M., Sioux City  
 \*Kruckenberg, William G., Mount Vernon  
 Kuhl, Augustus B., Davenport  
 \*Kuhl, Augustus B., Jr., Davenport  
 Kuhn, Leo C., Decorah  
 Kuiter, John H., St. Cloud, Minnesota  
 Kulp, Raymond R., Davenport  
 \*Kuntz, George S., Sibley  
 \*Kurth, Clarence J., Council Bluffs  
 Kurtz, Cecilia M., Cedar Rapids  
 Kyle, William S., Washington  
 Labagh, Nicholas W., Mystic  
 Lacey, Thomas B., Glenwood  
 \*LaDage, Lep H., Davenport  
 Ladd, Fred G., Cedar Rapids  
 LaForce, Edward F., Burlington (L.M.)  
 \*Lage, Raleigh H., Iowa City  
 Laidley, Wallace G., Ogden  
 Lamb, Frederick H., Davenport  
 Lamb, Harry H., Davenport  
 Lambach, Frederick, Davenport (L.M.)  
 Lampe, Elmer L., Bellevue  
 \*Lande, Jacob N., Sioux City  
 \*Langford, William R., Epworth  
 Langworthy, Henry G., Dubuque  
 Lannon, James W., Clear Lake  
 Larimer, Robert N., Sioux City  
 Larsen, Elmer A., Centerville  
 \*Larsen, Harold T., Fort Dodge  
 Larson, Andrew G., Dickens  
 \*Larson, John B., Laurens  
 \*Larson, Lester E., Decorah  
 \*Larson, Marvin O., Hawarden  
 Laughead, Charles A., Iowa City  
 Launder, Frank T., Garwin (L.M.)  
 Launder, Lloyd H., Marshalltown



- Lawrence, Joseph W., Dubuque  
 Lease, Nimrod J., Crawfordsville (L.M.)  
 Lee, Gisle M., Thompson (L.M.)  
 Lee, Wayne R., Burlington  
 ★Leedom, Charles, Springfield  
 ★Leehey, Paul J., Independence  
 Leffert, Frank B., Centerville  
 ★Lehman, Emery W., Des Moines  
 Leighton, Lewis L., Fort Dodge  
 ★Leik, Donald W., Dubuque  
 ★Leinbach, Samuel P., Belmond  
 Leinfelder, Placidus J., Iowa City  
 Leiter, Herbert C., Sioux City  
 Leith, George G., Wilton Junction  
 ★Lekwa, Alfred H., Story City  
 ★Lemon, Kenneth M., Oskaloosa  
 ★Lenaghan, Robert T., Clinton  
 Lenzmeier, Albert J., Davenport  
 Leonard, Bertram B., Jr., Anthon  
 Leonard, Earl R., Ocheyedan  
 Leonard, Frederick S., Dubuque  
 ★Leserman, Lester K., Rolfe  
 Lessenger, Ernest J., New London  
 Levin, Harry M., Waterloo  
 Lewis, Faye C., Webster City  
 ★Lewis, Samuel J., Columbus Junction  
 ★Lewis, William B., Webster City  
 Lichter, Theodore W., Edgewood  
 Liechty, Ernest J., Kingsley  
 Lierle, Dean M., Iowa City  
 Liken, John A., Creston  
 ★Limbirt, Edwin M., Council Bluffs  
 Limburg, J. Irwin, Jefferson  
 ★Limburg, John L., Jr., Jefferson  
 Lindsay, Vernard L., Glidden  
 Link, Martha A. M., Dubuque  
 Linn, Ellis G., Des Moines (L.M.)  
 Liska, Edward J., Ute  
 ★Lister, Kenneth E., Chariton  
 Little, Luther W., Atkins  
 Lloyd, John M., Washington  
 ★Locher, Robert C., Cedar Rapids  
 Lock, Arthur L., Rock Valley  
 Lockhart, Harold A., Cedar Rapids  
 ★Loeck, John F., Aurora  
 Loes, Anthony M., Dubuque  
 Lohman, Frederick H., Waterloo  
 ★Lohmann, Carl J., Burlington  
 ★Lohr, Oscar C., Churdan  
 ★Lohr, Phillips E., Churdan  
 Loizeaux, Charles E., Dubuque  
 ★Long, Draper L., Mason City  
 ★Longstreth, Clyde M., Atlantic  
 ★Longwell, Freeman H., Iowa City  
 Longworth, Wallace H., Boone  
 Loosbrock, John F., Perry  
 Loose, David N., Maquoketa (L.M.)  
 ★Lorfeld, Gerhard W., Davenport  
 Losh, Clifford W., Des Moines  
 Lott, Guy A., Osage  
 Lott, Robert H., Carroll  
 Love, Francis L., Iowa City  
 ★Lovejoy, E. Parish, Des Moines  
 Lovelady, Ralph, Sidney  
 Lovett, Charles E., Lineville  
 Lovett, Earl D., Vinton  
 Loving, Luther W., Estherville  
 ★Ludwick, Arthur L., Jr., Waterloo  
 Luehrsmann, Bernard C., Dyersville  
 Luehrsmann, Bernard H., Dyersville  
 Luginbuhl, Christian B., Des Moines  
 Luke, Edward, Coin  
 Lundvick, Arthur W., Gowrie  
 Luse, Ralph F., Clinton  
 Luthy, Karl R., Paducah, Kentucky  
 Luton, John D., Sioux City  
 Lynch, Robert J., Des Moines  
 Lynn, Arthur R., Marshalltown  
 Lynn, Clarence E., Dubuque  
 Lytle, Carl C., Dubuque  
 ★MacDougall, Roderick F., Cedar Rapids  
 ★MacEwen, Ewen M., Iowa City  
 ★Mackie, Donald G., Charles City  
 Mackin, M. Charles, Des Moines (L.M.)  
 MacLeod, Hugh G., Greene  
 MacNaughton, Luther D., Eagle Grove  
 Macrae, James G., Creston  
 Madsen, Henry V., Rockville, Indiana  
 ★Magaret, Ernest C., Glenwood  
 Magee, Emery E., Waterloo  
 Magoun, Charles E., Topeka, Kansas  
 Mahin, Frank M., Ainsworth  
 ★Maiden, Sydney D., Council Bluffs  
 ★Mailliard, Robert E., Storm Lake  
 ★Maire, Eugene J., Vail  
 Maloy, Wayland H., Shenandoah  
 Manahan, Charles A., Vinton  
 Mantle, William B., Albion  
 Mantz, Russell L., Cedar Rapids  
 Mapthorpe, Charles W., Toledo  
 ★Marble, Edwin J., Marshalltown  
 Marble, Ira A., Sheffield  
 Marble, Pearl L., Liscomb  
 ★Marble, Willard P., Marshalltown  
 Marek, Joseph E., Mason City  
 ★Margolin, Julius M., Perry  
 ★Marinos, Harry G., Mason City  
 Maris, Cornelius, Sanborn  
 Maris, Gerrit, Hull  
 Maris, William, Sioux Center  
 Mark, Edwin M., Clarksville  
 ★Marker, John I., Davenport  
 ★Marquis, Fred M., Waterloo  
 ★Marquis, George S., Des Moines  
 Marr, James, Silver City  
 ★Marrs, Walford D., Tabor  
 Marsh, William E., Eldora  
 Martin, George H., Eagle Grove  
 Martin, Hobart E., Clinton  
 ★Martin, James W., Holstein  
 Martin, John F., Latimer  
 ★Martin, Lee R., Council Bluffs  
 Martin, Loran M., Fort Dodge  
 ★Martin, Ronald F., Sioux City  
 Martin, Sidney D., Carroll  
 ★Mason, James H., Plainfield  
 Mason, Stella M., Mason City (L.M.)  
 Masson, Hervey F., Washington  
 ★Mast, Truman M., Washington  
 ★Mater, Dwight A., Knoxville  
 Matheson, John H., Des Moines  
 Mathias, John P., Mediapolis (L.M.)  
 Mathiasen, Aileen E., Council Bluffs  
 ★Mathiasen, Henning W., Neola  
 Matthews, Damon G., Milton  
 Matthews, Robert J., Clarinda  
 Matthey, Carl H., Davenport  
 Matthey, Walter A., Davenport  
 ★Mattice, Lloyd H., Danbury  
 Mauer, George A., LeMars  
 Mauer, Richard E., Arlington, New Jersey  
 ★Mauritz, Emory L., Des Moines  
 Maxwell, Charles T., Sioux City  
 Maxwell, John, What Cheer  
 May, George A., Des Moines  
 McAllister, James, Odebolt  
 McBride, James T., Des Moines (L.M.)  
 McBride, Robert H., Sioux City  
 McBurney, George F., Belmond  
 McCaffrey, Eugene H., Des Moines  
 McCall, John H., Allerton  
 McCarl, J. Jay, Sac City  
 McCarthy, Frank D., Sioux City  
 McCartney, William H., Des Moines  
 McClean, Earl D., Des Moines  
 McClintock, John T., Iowa City (L.M.)  
 McClure, Ernest C., Bussey (L.M.)  
 McClure, Gail A., Ames  
 McClurg, F. Haven, Fairfield  
 ★McConkie, Edwin B., Cedar Rapids  
 McConkie, Willis L., Carroll  
 McConnaughey, James T., Mount Pleasant  
 ★McCoy, Harold J., Des Moines  
 McCrary, Warren E., Lake City  
 McCrae, Eppie S., Eddyville (L.M.)  
 McCreedy, Murry L., Ames  
 McCreery, John W., Whittemore  
 McCreight, George C., Des Moines  
 ★McCuiston, Harry M., Sioux City  
 ★McDaniel, John D., Marengo  
 McDannell, John, Nashua  
 ★McDonald, Donald J., Des Moines  
 ★McDonald, James E., Mason City (L.M.)  
 McDowall, Gilbert T., Gladbrook  
 McDowell, William O., Grundy Center  
 McElderry, Donald, Princeton  
 McFarland, Guy E., Ames  
 ★McFarland, Guy E., Jr., Ames  
 ★McFarland, Julian E., Ames  
 McGill, Arthur A., Danbury  
 ★McGillivray, Raymond I., Guthrie Center  
 ★McGowan, James P., Harlan  
 McGrane, Merle J., New Hampton  
 McGrath, William J., Elkader  
 McGready, Joseph H., Independence (L.M.)  
 McGuire, Kenneth L., Keota  
 McGuire, Roy A., Fairfield  
 McHugh, Charles P., Sioux City  
 McIntosh, Charles B., Iowa City  
 McKean, Alexander C., Mount Pleasant  
 McKean, Frank F., Allison  
 McKee, Albert P., Iowa City  
 ★McKee, Thomas L., Keokuk  
 McKirahan, Josiah R., Wayland  
 ★McKitterick, John C., Burlington  
 McLaughlin, Charles W., Washington  
 McMahon, Thomas, Wyoming (L.M.)  
 McManus, Joseph P., Graettinger  
 ★McMeans, Thomas W., Davenport  
 McMillen, Arch S., Fort Dodge  
 McMurray, Edward A., Newton  
 McNamara, Frank P., Dubuque  
 ★McNamee, Jesse H., Des Moines  
 McPherrin, Henry I., Des Moines  
 McQuillen, Charles W., Charles City  
 ★McQuiston, J. Stuart, Cedar Rapids  
 McTaggart, William B., Fort Dodge  
 McVay, Melvin J., Lake City  
 Mead, Frank N., Cedar Falls (L.M.)  
 Meany, John F., Rockwell  
 Meents, Diedrich J., Fort Madison  
 ★Meffert, Clyde B., Cedar Rapids  
 Meggers, Edward C., McGregor  
 ★Megorden, William H., Mount Pleasant  
 Mehler, Frank R., New London  
 Melgaard, Bennett A., Sioux City  
 Mellen, Robert G., Clinton  
 Mercer, Clifford D., West Union (L.M.)  
 Meredith, Loren K., Des Moines  
 Mereness, Herbert D., Dolliver  
 Merkel, Arthur E., Des Moines  
 ★Merkel, Byron M., Des Moines  
 Merrill, Charles H., Oskaloosa  
 Merritt, Arthur M., Des Moines  
 Merreshon, Clinton E., Adel (L.M.)  
 Meyer, Alfred K., Clinton  
 Meyer, George R., Marshalltown (L.M.)  
 ★Meyer, Milo G., Marshalltown  
 Meyers, Frank W., Dubuque  
 Meyers, Henry A., Davenport  
 Michel, Bernard A., Dubuque (L.M.)  
 Mikelson, Clarence J., Iowa City  
 Miller, Brownlow B., Tabor  
 Miller, Chester I., Iowa City  
 ★Miller, Donald F., Williamsburg  
 Miller, Enos D., Wellman  
 Miller, Howard L., Cedar Rapids  
 Miller, Johannes J., Ackley  
 Miller, Lawrence A., North English  
 ★Miller, Oscar H., Estherville  
 Miller, Temple M., Muscatine  
 Miller, Wilbur R., Iowa City  
 Miller, William B., Centerville  
 Millic, Glenn S., Battle Creek  
 Millikan, Clark H., Iowa City  
 Mills, Ernest M., LeGrand (L.M.)  
 Mills, Frank W., Ottumwa (L.M.)  
 Miltner, Leo J., Davenport  
 Minassian, Harootune A., Des Moines (L.M.)  
 Minassian, Thaddeus A., Des Moines  
 ★Miner, James B., Jr., Charles City  
 Miner, James B., Sr., Charles City (L.M.)  
 ★Missildine, Whitney H., Eagle Grove  
 Missman, Walter F., Klemme  
 Mitchell, Claire H., Indianola  
 ★Moen, Harry P., West Union  
 ★Moen, Stanley T., Hartley  
 ★Moerke, Robert F., Burlington  
 Moershel, Henry G., Homestead  
 Moes, Matthew J., Dubuque  
 Mol, Henry L., Grundy Center  
 Montgomery, Earl C., Omaha, Nebraska  
 ★Montgomery, Guy E., Keota  
 Montz, Fred, Lowden  
 Moon, Barclay J., Cedar Rapids  
 ★Mooney, Felix P., Jewell  
 Mooney, James C., Independence  
 Moore, Daniel V., Sioux City  
 ★Moore, Edson E., Osage  
 ★Moore, Gage C., Ottumwa  
 Moore, Harold H., Ottumwa  
 Moore, Harris C., Melbourne  
 Moore, Jesse C., Eldon  
 Moore, Morris, Walnut  
 Moore, Pauline V., Iowa City  
 Moorehead, Giles C., Ida Grove (L.M.)  
 Moorehead, Harold B., Underwood  
 Moran, Thomas A., Melrose  
 ★Morden, Richard P., Des Moines  
 Morden, Roy R., Des Moines  
 Morgan, Earl E., Sioux City  
 Morgan, Fred B., Clinton  
 Morgan, Harold W., Mason City  
 Morgenthaler, Otis P., Templeton  
 ★Moriarty, John F., Rock Rapids  
 ★Moriarty, Lauren R., Villisca  
 Morris, Zenella N., Stockport (L.M.)  
 Morrison, Edward D., Fort Dodge  
 ★Morrison, John R., Carroll  
 Morrison, John W., Alta  
 Morrison, Orry C., Carroll  
 ★Morrison, Roland B., Carroll  
 Morrison, Wesley J., Cedar Rapids (L.M.)  
 Morse, Charles H., Eagle Grove (L.M.)  
 Morton, Elmer E., Manning  
 Morton, Matthew T., Estherville  
 ★Moskovitz, Julius M., Council Bluffs  
 Mott, William H., Farmington  
 Moulton, Milo W., Bellevue  
 Mountain, Elmer B., Des Moines  
 Mountain, George E., Des Moines  
 Mueller, Emil F., Dyersville  
 Mueller, James A., Fenton  
 ★Mueller, John J., Dubuque  
 Muench, Virgil O., Nichols  
 ★Mugan, Robert C., Sioux City  
 ★Muhs, Emil O., Muscatine  
 ★Mullmann, Arnold J., Adel

- Mulsow, Frederick W., Cedar Rapids  
 ★Mumma, Claude S., Des Moines  
 Munger, Elbert E., Spencer  
 Munger, Elbert E., Jr., Spencer  
 Murchison, Kenneth, Sidney  
 ★Murphey, Arlo L., Fredericksburg  
 Murphy, Cornelius B., Alton  
 Murphy, George C., Waterloo  
 ★Murphy, James H., Des Moines  
 Murphy, Joseph J., Cedar Rapids  
 ★Murray, Edward S., Cedar Rapids  
 Murray, Frederick G., Cedar Rapids  
 Murray, Jonathan H., Burlington  
 Murtough, James E., New Hampton  
 Myers, Edward M., Woodward  
 Myers, Judson W., Postville  
 ★Myers, Kermit W., Sheldon  
 ★Nagyfy, Stephen F., Iowa City  
 Nash, Edwin A., Ottumwa  
 Nauman, Ernest C., Waterloo  
 Neal, Emma J., Cedar Rapids  
 Nederhiser, Morgan L., Cascade  
 ★Needles, Roscoe M., Atlantic  
 Negus, Cora W., Keswick  
 Nelken, Leonard, Clinton  
 Nelken, Viola D., Clinton  
 ★Nelson, Arnold L., Des Moines  
 ★Nelson, Carol C., Red Oak  
 Nelson, Fred L., Ottumwa  
 ★Nelson, Frederick L., Jr., Ottumwa  
 Nelson, Harry E., Dayton  
 Nelson, Leo C., Jefferson  
 Nelson, Paul O., Emmetsburg  
 Nelson, Robert J., Clinton  
 Nemec, Joseph J., Cedar Rapids  
 Nesler, Alfred B., Dubuque  
 Netolicky, Joseph Y., Solon  
 ★Netolicky, Robert Y., Cedar Rapids  
 Netolicky, Wesley J., Cedar Rapids  
 ★Neu, Harold N., Sac City  
 ★Neufeld, Robert J., Davenport  
 Neuzil, William J., Cedar Rapids  
 Newell, William C., Ottumwa  
 Newland, Don H., Belle Plaine  
 Newland, Elmer R., Drakesville  
 Newman, Cloyce A., Bode  
 ★Newman, Robert W., Iowa City  
 Newport, Pearce E., Clarinda  
 Newton, Dennis L., Fort Madison  
 Niblock, George F., Derby  
 ★Nicholson, Clyde G., Spirit Lake  
 ★Nicoll, Charles A., Panora  
 Nicoll, David T., Mitchellville (L.M.)  
 Nielsen, Rudolph F., Cedar Falls  
 Nielson, Arthur L., Harlan  
 ★Niemann, Theodore V., Brooklyn  
 ★Nierling, Paul A., Cresco  
 Noble, Earl H., Clemons  
 Noble, Frederick W., Fort Madison  
 Noble, Harold F., Fort Madison  
 Noble, Lloyd E., Rhodes  
 Noble, Nelle S., Des Moines  
 ★Noble, Rusl P., Cherokee  
 ★Noé, Carl A., Cedar Rapids  
 Noé, Charles F., Amana (L.M.)  
 Nonland, Ruben, Iowa City  
 ★Noonan, James J., Marshalltown  
 Nord, Donald H., Cambridge  
 ★Norment, John E., Clinton  
 North, Frank R., Winfield  
 Norton, Alva C., Rockwell City (L.M.)  
 Norton, Vera V., Waverly  
 ★Noun, Louis J., Des Moines  
 ★Noun, Maurice H., Des Moines  
 Nourse, Leslie M., Des Moines  
 Null, Frederick F., Hawarden  
 Nyquist, David M., Eldora  
 Nysewander, Christian, Des Moines (L.M.)  
 Ober, Frank G., Burlington  
 Obermann, Charles F., Cherokee  
 ★O'Brien, Cecil S., Iowa City  
 ★O'Brien, Stephen A., Mason City  
 ★O'Connor, Edwin C., New Hampton  
 Odell, Isaac H., Des Moines  
 ★O'Donnell, Joseph E., Clinton  
 O'Donoghue, Arch F., Sioux City  
 O'Donoghue, James H., Storm Lake  
 ★Oelrich, Carl D., Sioux Center  
 Oggel, Herman D., Maurice  
 O'Keefe, John E., Waterloo (L.M.)  
 ★O'Keefe, Paul T., Waterloo  
 Okerlin, Oscar W., Essex  
 O'Leary, Francis B., George  
 Olsen, Martin I., Des Moines  
 Olson, Evelyn M., Winterset  
 ★Olson, Paul F., Dubuque  
 Olson, Russell L., Northwood  
 ★Osborn, Clarence R., Dexter  
 ★Osincup, Paul W., Sioux City  
 Osten, Burdette H., Northwood  
 O'Toole, Laurence C., LeMars  
 Ott, Martin D., Davenport  
 Otto, Paul C., Fort Dodge  
 Overton, Lewis M., Des Moines  
 ★Owen, William E., Osage  
 Owen, William R., Osage  
 Pace, Arthur A., Toledo (L.M.)  
 Padgham, John T., Grinnell  
 Page, Addison C., Des Moines (L.M.)  
 Pagsen, Otto H., Iowa Falls  
 Pahlas, Henry M., Dubuque  
 ★Paige, Ralph T., LaPorte City  
 Painter, Jesse C., Dubuque  
 ★Painter, Robert C., Dubuque  
 Palmer, Carson W., Guttenberg  
 ★Panzer, Edward J. C., Stanton  
 ★Paragas, Modesto R., Creston  
 ★Parish, John R., Grinnell  
 Parish, Ora F., Grinnell (L.M.)  
 Park, Elmer R., Sioux City  
 ★Parke, John, Cedar Rapids  
 Parker, Bernard B., Centerville  
 Parker, Dean, Iowa City  
 Parker, Edward S., Ida Grove (L.M.)  
 Parker, James D., Fayette  
 Parker, Robert L., Des Moines  
 ★Parkin, George L., Iowa City  
 Parks, Claude O., Iowa City  
 Parry, Roy E., Scranton  
 Parsons, Harry C., Grinnell  
 Parsons, Irving U., Malvern (L.M.)  
 Parsons, John C., Des Moines  
 Parsons, Percival L., Traer  
 ★Paschal, George A., Williams  
 ★Pascoe, Paul L., Carroll  
 Patterson, Alpheus W., Fonda  
 Patterson, John N., Burlington (L.M.)  
 ★Patterson, Roy A., Webster City  
 Paul, John D., Anamosa  
 Paul, William D., Iowa City  
 Paulsen, Herbert B., Harris  
 ★Paulus, Edward W., Iowa City  
 ★Paulus, James W., Dubuque  
 Payne, Rosewell H., Exira  
 ★Pearlman, Leo R., Des Moines  
 Pearson, George J., Burlington  
 ★Pearson, William W., Des Moines  
 Peart, John C., Davenport  
 Pease, Herbert, Alta Vista  
 Peasley, Harold R., Des Moines  
 Peck, Raymond E., Davenport  
 ★Peck, Levin H., Lake City  
 ★Peisen, Conan J., Des Moines  
 Pelz, Werner P., Lakota  
 Pence, James W., Columbus Junction  
 ★Penn, Eugene C., West Des Moines  
 Perkins, Franklyn C., Hedrick  
 Perkins, Rolla W., Sioux City  
 ★Perkins, Rollin M., Davenport  
 Perley, Arthur E., Waterloo  
 Peschau, Waldo E., Cedar Rapids  
 Petersen, Emil C., Atlantic  
 ★Petersen, Millard T., Atlantic  
 ★Petersen, Vernon W., Iowa City  
 Peterson, August J., Forest City  
 Peterson, Evan A., Burlington  
 Peterson, Frank R., Iowa City  
 Peterson, John C., Jr., Hartley  
 Peterson, Ray W., Clear Lake  
 Petty, Wallace S., Lincoln, Nebraska  
 ★Pfeiffer, Eric P., Des Moines  
 Pfeiffer, Ernst, Hartley  
 Pfeiffer, Harry E., Cedar Rapids  
 Pfohl, Anthony C., Dubuque  
 ★Phelps, Richard E. H., State Center  
 Phillips, Albin B., Clear Lake (L.M.)  
 ★Phillips, Allan B., Des Moines  
 Phillips, Clarence P., Muscatine  
 Phillips, Isaac H., Missouri Valley  
 Phillips, Jesse H., Montezuma (L.M.)  
 Phillips, Norman W., Clear Lake (L.M.)  
 Phillips, Walter B., Montezuma  
 Pickard, John C., Dubuque  
 Piekenbrock, Frank J., Dubuque  
 Piercy, Kenneth C., Ames  
 Pierson, Lawrence E., Sioux City  
 Pitluck, Harry L., Laurens  
 ★Plankers, Arthur G., Dubuque  
 Plass, Everett D., Iowa City  
 Plimpton, Robert P., Denison  
 Plummer, George A., Rochester, New York  
 Poepsel, Frank L., West Point  
 Pollock, Roscoe, Douds-Leando  
 Pope, John M., Camarillo, California  
 Porstmann, Louis J., Davenport  
 Porter, Charles E., Redfield  
 Porter, Clarence M., Woodward  
 ★Porter, Robert J., Des Moines  
 Porter, S. Dale, Grinnell  
 Posner, Edward R., Des Moines (L.M.)  
 Powell, Burke, Albia (L.M.)  
 ★Powell, Lester D., Des Moines  
 ★Powell, Robert A., Farragut  
 Powell, Velura E., Red Oak  
 Powers, Henry R., Emmetsburg  
 Powers, Ivan R., Waterloo  
 Powers, Joseph C., Hampton  
 Preece, Wade O., Waterloo  
 Prentice, George L., Bloomfield  
 Presnell, J. William, Scranton  
 Presnell, William H., Charlotte  
 Prettyman, Oscar R., Manson  
 ★Prewitt, Leland H., Ottumwa  
 Price, Alfred S., Des Moines  
 Priessman, Frank A., Keokuk  
 ★Priestley, Joseph B., Des Moines  
 Pringle, Jesse A., Bagley (L.M.)  
 ★Proctor, Rothwell D., Cedar Rapids  
 Proskouriakoff, Alla N., Burlington  
 Prouty, James V., Cedar Rapids  
 ★Ptacek, Joseph L., Webster City  
 ★Pumphrey, Loira C., Keokuk  
 ★Purcell, Bert E., Iowa Falls  
 ★Purdy, William O., Des Moines  
 Putnam, Chester L., Des Moines  
 ★Quinn, Francis P., Dubuque  
 Quire, Frank E., Lynnville  
 ★Ralston, Furman P., Knoxville  
 Rambo, Cyrus C., Creston  
 Rambo, David T., Ottumwa  
 ★Rambo, Eli F., Webster City  
 Randall, John H., Iowa City  
 ★Randall, William L., Hampton  
 Rankin, Isom A., Iowa City  
 ★Rankin, John R., Keokuk  
 Rankin, William, Keokuk  
 Ransom, Harry E., Des Moines  
 ★Rarick, Ivan H., Sioux City  
 Rasmussen, Carl C., Des Moines  
 Rater, David L., Ottumwa  
 ★Rathe, Herbert W., Waverly  
 ★Rausch, Gerald R., Clarinda  
 Ravitts, Joseph L., Montezuma  
 Raw, Elmer J., Pierson  
 Rawson, Elwin G., Anamosa  
 ★Redmond, James J., Cedar Rapids  
 Redmond, Thomas M., Monticello  
 Reed, Andrew L., Estherville  
 Reed, Guy P., Davis City (L.M.)  
 Reed, Paul A., Iowa City  
 Reed, Purl E., Council Bluffs  
 Reed, Roe B., Clearfield  
 Reeder, James E., Sioux City  
 ★Reeder, James E., Jr., Sioux City  
 Reiley, William S., Red Oak  
 Reimers, Robert S., Fort Madison  
 Reimringer, Martin J., Cheyenne, Wyoming  
 Reinicke, Edward L., Dubuque (L.M.)  
 Reinsch, Frank, Ashton  
 Render, Norman D., Clarinda  
 Rendleman, William H., Davenport  
 Reuber, Roy N., Mason City  
 Reuling, Frank H., Waterloo  
 Reynolds, Albert C., Des Moines  
 Reynolds, Earl O., Greenfield  
 ★Rhomberg, Edward B., Guttenberg  
 Rice, Floyd W., Des Moines  
 Richards, Frank O., Winterset  
 Richardson, Leon F., Collins  
 ★Richmond, Arthur C., Fort Madison  
 Richmond, Frank R., Fort Madison  
 ★Richmond, Paul C., New Hampton  
 ★Richter, Harold J., Albia  
 Ridenour, Joseph E., Waterloo  
 ★Riegelman, Ralph H., Des Moines  
 ★Rieniets, John H., Cedar Rapids  
 Riggert, Leonard O., Clinton  
 Riggler, Frank P., Fort Madison  
 Riley, John, Exira (L.M.)  
 Rimel, George W., Bedford  
 Ringena, Engelke J., Brooklyn  
 ★Ringrose, Edward J., Iowa City  
 Rinker, George E., Oto  
 ★Ristine, Leonard P., Mount Pleasant  
 Ritter, John F., Maquoketa  
 Rizzo, Frank, Sibley  
 Robb, James B., Chariton  
 Roberts, Charles R., Dysart  
 Roberts, Francis L., Spirit Lake  
 Roberts, Francis M., Knoxville  
 Roberts, Justus B., Ottumwa  
 Robertson, Andrew A., Council Bluffs  
 ★Robertson, Treadwell A., West Liberty  
 Robinson, Robert E., Waverly  
 ★Robinson, Van C., Des Moines  
 Rock, John E., Davenport  
 Rockwell, Maryelda, Clinton  
 ★Rodawig, Donald F., Spirit Lake  
 Roddy, Harold J., Mason City  
 Rodemeyer, Frederick H., Sheffield  
 Roder, Carl F., Dumont  
 Rodgers, Lewis A., Oskaloosa (L.M.)  
 Roe, Cullen B., Afton  
 Rogers, Claude B., Earlville  
 Rogne, Conrad O., Dubuque  
 ★Rohlf, Edward L., Jr., Waterloo  
 Rohner, Frank J., Iowa City (L.M.)  
 Rohrbacher, William M., Iowa City



- Rohwer, Roland T., Sioux City  
 ★Rofls, Floyd O., Parkersburg  
 Rolfs, Fred A., Aplington  
 Romine, John H., Stanhope  
 Rominger, Clark W., Waukon  
 Roost, Frederick H., Sioux City  
 Rose, Alvin A., Story City  
 ★Rose, Joseph E., Grundy Center  
 ★Rosebrook, Lee E., Ames  
 Rosendorff, Charlotte, Bettendorf  
 ★Rosendelf, Robert T., Council Bluffs  
 Ross, Arthur J., Jr., Perry  
 ★Rost, Glenn S., Red Oak  
 ★Rotkow, Maurice J., Des Moines  
 Rowan, Charles J., Beverly Hills, Cal.  
 Rowat, Harry L., Des Moines  
 Rowe, Frank N., Denison  
 Rowley, William G., Sioux City  
 Royal, Lester A., West Liberty  
 Royal, Malcolm A., Des Moines  
 Ruml, Wentze, Cedar Rapids  
 Runyon, John H., Seymour  
 Rusk, Lester D., Sioux City  
 Russ, Jesse E., Rake  
 Russell, Edmund D., Fort Dodge  
 Russell, Elwood P., Burlington  
 Russell, John, Des Moines  
 Russell, Ralph E., Waterloo  
 Rust, Emery A., Webb  
 Ruth, Verl A., Des Moines  
 Ryan, Allen J., Harlan  
 ★Ryan, Cyril J., Creston  
 Ryan, Granville N., Des Moines (L.M.)  
 ★Ryan, Martin J., Sioux City  
 Saar, Jesse L., Donnellson  
 ★Sage, Erwin C., Burlington  
 Sals, Adolph L., Iowa City  
 St. Onge, Joseph A., Sioux City  
 Salisbury, Frederick S., Knoxville  
 Sampson, Carl E., Creston  
 Sampson, Frank E., Creston (L.M.)  
 Sams, Joseph H., Clarion (L.M.)  
 Samuelson, Carl A., Sheldon  
 Sanders, George E., Des Moines  
 Sanders, Matthew G., Fort Dodge  
 Sanders, William E., Long Beach, Cal.  
 Sarff, Floyd G., Logan  
 Sartor, Guido J., Mason City  
 Sartor, Pierre, Titonka  
 Sawyer, Grace M., Woodward  
 Sawyer, Prince E., Sioux City  
 Sayler, Harley L., Des Moines (L.M.)  
 Sayre, Ivan K., St. Charles  
 Scales, Emmet T., Des Moines  
 ★Scanlan, George C., DeWitt  
 Scanlan, Maurice, DeWitt  
 Scanlon, George H., Iowa City  
 ★Scannell, Raymond C., Carroll  
 Schaefer, Paul H., Burlington  
 ★Schaeferle, Lawrence G., Gladbrook  
 Schaffer, Leander H., DeWitt  
 Schanche, Arthur N., Ames  
 ★Scharle, Theodore, Dubuque  
 Scheele, Matthias H., University City, Mo.  
 Scheldrup, Eugene W., Iowa City  
 Schenk, Erwin, Des Moines  
 Schiff, Joseph, Anita  
 Schilling, Nicholas, New Hampton (L.M.)  
 ★Schlaser, Verne L., Des Moines  
 Schmidt, Bernhard H., Davenport (L.M.)  
 Schmidt, Generva, Des Moines  
 Schmitz, Henry C., Des Moines  
 Schnug, George E., Dows  
 Schoon, Harold W., Sibley  
 Schreiner, Charles A., Ollie  
 Schroeder, Adrian J., Marshalltown  
 Schroeder, Frank N., Ryan  
 Schroeder, Leslie V., Walcott  
 ★Schroeder, Mellen G., Pella  
 Schrup, Joseph H., Dubuque (L.M.)  
 ★Schueller, Charles J., Dubuque  
 Schultz, Albert A., Fort Dodge  
 Schultz, Ivan T., Humboldt  
 Schultz, Nelle E. T., Humboldt  
 ★Schwartz, John W., Sioux City  
 Scott, Philip A., Spirit Lake  
 Scott, Sophie H., Des Moines (L.M.)  
 Scott, Walter E., Adel (L.M.)  
 ★Seaman, Charles L., Mount Ayr  
 ★Sedlacek, Leo B., Cedar Rapids  
 ★Seibert, Cecil W., Waterloo  
 Seidler, William A., Jamaica (L.M.)  
 Seiler, Raymond A., Blairstown  
 Sellards, Joseph W., Clarinda  
 Sells, Benjamin B., Independence  
 Sells, Frank W., Osceola  
 ★Sells, Robert L., Jr., Iowa City  
 ★Selman, Ralph J., Ottumwa  
 Selo, Rudolph A., Hazleton  
 ★Senfeld, Sidney, Belle Plaine  
 Senska, Frank R., Brandon  
 Senty, Elmer G., Davenport  
 Severson, George J., Slater  
 Shafer, Arthur W., Davenport  
 Shafer, Lee E., Davenport  
 ★Shane, Robert S., Pilot Mound  
 Shannon, Edwin R., Waterloo  
 ★Sharpe, Donald C., Dubuque  
 Shaw, Albert E., Des Moines  
 ★Shaw, David F., Britt  
 ★Shaw, Ernest E., Indianola  
 Shaw, Mathew M., Madrid  
 ★Shaw, Robert E., Waverly  
 Shelton, Charles D., Bloomfield  
 Sherbon, Amos, Central City  
 Sherlock, John H., Rock Rapids  
 Sherman, Richard C., Farley  
 Shine, Dan W., Oelwein  
 ★Shonka, Thomas E., Malvern  
 ★Shope, Charles D., Storm Lake  
 ★Shorey, Joseph R., Davenport  
 ★Shrader, John C., Fort Dodge  
 Shulkin, Samuel H., Sioux City  
 Shumate, C. Frank, Miles  
 Siberts, Frank L., Hampton  
 Sibley, Edward H., Sioux City  
 Sievers, Claudius L., Denison  
 Sigworth, Fred B., Anamosa  
 Simmons, Ralph R., Des Moines  
 Simons, James D., Leon  
 Simonsen, Marie N., Sioux City  
 Singer, Siegmund F., Ottumwa  
 ★Sinn, Irvin J., Williamsburg  
 Sinning, Augustus, Iowa City  
 ★Sinning, John E., Melbourne  
 Skallerup, Walter M., Walker  
 ★Skultety, James A., Des Moines  
 Sloan, Helea M. J., Richmond, Virginia  
 ★Smazal, Stanley F., Davenport  
 ★Smead, Howard H., Des Moines  
 Smead, Leslie L., Newton  
 Smiley, Ralph E., Mason City  
 Smith, Arthur F., Manning  
 ★Smith, Carl W., Dubuque  
 Smith, Cecil R., Onslow  
 Smith, Channing G., Granger  
 ★Smith, Elmer M., State Center  
 ★Smith, Eugene E., Waterloo  
 Smith, Ferdinand J. E., Milford (L.M.)  
 Smith, Franklin C., Mount Ayr (L.M.)  
 Smith, Fred M., Iowa City  
 ★Smith, Harold F., Iowa City  
 Smith, Harry P., Iowa City  
 ★Smith, Herman J., Des Moines  
 Smith, Homer A., Correctionville  
 Smith, Howard W., Woodward  
 Smith, Jason N., Iowa City  
 Smith, John E., Clarence  
 Smith, Lawrence D., Des Moines  
 ★Smith, Rex L., Waterloo  
 ★Smith, Robert A., Albia  
 Smith, Robert T., Granger  
 ★Smith, Roland T., Des Moines  
 ★Smith, Rupard G., Cedar Falls  
 Smith, Sidney D., Waterloo  
 Smouse, William O., Des Moines (L.M.)  
 ★Smrha, James A., Cedar Rapids  
 Smythe, Arnold M., Des Moines  
 ★Snodgrass, Ralph W., Des Moines  
 ★Snyder, Dean C., DeWitt  
 ★Snyder, Glen E., Grimes  
 Snyder, John A., Roland  
 Snyder, Raleigh R., Des Moines  
 Soe, Peder, Kimballton  
 ★Sohm, Herbert A., Des Moines  
 Sokol, John M., Spencer  
 Sollis, Delmar B., Chariton  
 ★Somers, Pearl E., Grinnell (L.M.)  
 Sones, Clement A., Des Moines  
 Sorensen, Alfred, Harlan  
 ★Sorensen, Elmer M., Red Oak  
 ★Sorensen, Regnar M., Des Moines  
 ★Sorenson, Aral C., Davenport  
 Sorenson, Kermit R., Sahula  
 Soucek, Adolph, Mount Pleasant  
 Spain, Robert T., Conrad  
 Sparks, Francis R., Waverly (L.M.)  
 Spaulding, Homer L., Ankeny  
 Spear, William M., Oakdale  
 Speidel, Glenn P., Providence, Rhode Island  
 ★Speigel, Irving J., Clinton  
 Spellman, Martin T., Cedar Rapids  
 ★Sperow, Wendell B., Nevada  
 Spilman, Harold A., Ottumwa  
 Spinharney, Lester J., Cherokee  
 ★Springer, Eugene W., Iowa City  
 ★Springer, Floyd A., Des Moines  
 Sproul, William M., Des Moines  
 Stabo, Trond N., Decorah (L.M.)  
 ★Stadler, Harold E., Iowa City  
 Stafford, James F., Lovilia  
 Stafford, Richard H., Sumner (L.M.)  
 Stageman, John F., Council Bluffs  
 ★Staggs, William A., Iowa City  
 Stalford, John H., Sac City (L.M.)  
 Stam, Nicholas C., Mason City  
 ★Standefer, Joe M., Tama  
 Stansbury, John E., Cedar Rapids  
 ★Stansbury, J. Robert, Cedar Rapids  
 ★Stark, Callistus H., Cedar Rapids  
 Starr, Charles F., Mason City  
 Stary, Allen C., Sioux City  
 ★Stauch, Martin O., Whiting  
 Staudt, Alfred J., Waterloo  
 ★Stearns, A. Bryce, Des Moines  
 Steele, George H., Belmond  
 Steelsmith, Frank R., Des Moines  
 ★Stenrod, Emerson J., Iowa Falls  
 ★Steffens, Lincoln F., Dubuque  
 ★Steffey, Fred L., Keokuk  
 ★Stegman, Jacob J., Marshalltown  
 ★Steindler, Arthur, Iowa City  
 Steinle, George H., Burlington  
 Stephen, Paul, Manchester  
 Stephen, Raymond J., Cedar Rapids  
 ★Stephens, Robert L., Iowa City  
 Stepp, James K., Manchester  
 Sternberg, Fred, West Des Moines  
 Sternalag, Walter A., Mount Pleasant (L.M.)  
 ★Sternhill, Irving, Mason City  
 ★Sternhill, Isaac, Council Bluffs  
 Stevenson, Eber F., Waterloo (L.M.)  
 ★Stevenson, William W., Rockwell City  
 ★Stewart, Alexander P., Inwood  
 Stewart, Robert A., Independence  
 Stewart, William L., Mediapolis  
 Stinson, Alice C., Estherville  
 Stoakes, Charles S., Lime Springs  
 Stober, Raymond W., Charles City  
 Stodden, Frank J., Sioux City  
 Stoeck, William A., Davenport  
 Stolley, Jordan G., Merville  
 ★Straub, Joseph J., Dubuque  
 Strawn, John T., Des Moines  
 Stribley, Harry A., Dubuque  
 Strohbehn, Edward F., Davenport (L.M.)  
 Strosnider, Homer O., Keokuk  
 Stroy, Herbert E., Osceola  
 ★Struble, Gilbert C., Ottumwa  
 Struck, Kuno H., Davenport  
 Stuart, Percy E., Nashua  
 Stumme, Ernest H., Denver  
 ★Stump, Robert B., Iowa City  
 Stutsman, Eli E., Washington  
 ★Stutsman, Robert E., Washington  
 Suchmel, Thomas F., Cedar Rapids  
 Sugg, Herbert R., Clinton  
 ★Sulek, Arthur E., Cedar Rapids  
 Sullivan, Lawrence F., Donahue  
 Sult, William F., Gilman  
 ★Sulzbach, John F., Oelwein  
 ★Sunderbruch, John H., Davenport  
 ★Svendsen, Reinert N., Decorah  
 Swab, Charles C., Cedar Rapids  
 Swallum, James A., Storm Lake  
 Swallum, Troy W., Spencer  
 Swan, Kenneth C., Iowa City  
 Swanson, John E., Sioux City  
 Swanson, Leslie W., Mason City  
 ★Swift, Charles H., Jr., Marcus  
 ★Swift, Frederick J., Jr., Maquoketa  
 Swift, Frederick J., Maquoketa  
 Swinney, Roy G., Richland  
 Sybenga, Jacob J., Pella  
 Synhorst, John B., Des Moines  
 ★Sywassink, George A., Muscatine  
 Tait, John H., Des Moines  
 Talley, Louis F., Marshalltown  
 ★Tamisiea, Francis X., Missouri Valley  
 Tamisiea, John L., Missouri Valley  
 ★Tandy, Roy W., Morning Sun  
 Tapper, George W., Monona  
 Taylor, Charles I., Pomeroy  
 Taylor, Edward D., Davenport (L.M.)  
 ★Taylor, Ingram C., Fairfield  
 Taylor, Lawrence A., Ottumwa  
 Taylor, Maude, Ottumwa  
 Taylor, Robert S., Davenport  
 Teufel, John C., Davenport  
 Tharp, Herbert M., Monroe  
 ★Thatcher, Orville D., Fort Dodge  
 ★Thatcher, Wilbur C., Fort Dodge  
 Thayer, Wilbur F., Ocheyedan  
 Thein, Garfield M., Oelwein  
 Theisen, Roy L., Dubuque  
 Thielen, Edward W., Waterloo  
 Thielen, Michael H., Grundy Center  
 Thierman, Edward J., Cedar Falls  
 Thomas, Clarence L., Guthrie Center (L.M.)  
 ★Thomas, Clifford W., Forest City  
 Thomas, Clyde E., Keystone  
 Thomas, Colin G., Monticello  
 Thomas, Louis A., Red Oak  
 Thomas, William H., McGregor  
 ★Thompson, Elvin D., Webster City  
 Thompson, Gilbert N., Jesup  
 Thompson, Harry F., Forest City (L.M.)

- Thompson, Howard E., Dubuque  
 Thompson, Ira F., Donnellson  
 Thompson, James R., Waterloo  
 Thompson, Kenneth L., Oakland  
 Thompson, Virginia D., Des Moines  
 Thompson, William L., Bayard (L.M.)  
 Thoms, Adolph N., Cedar Falls  
 Thomsen, Thomas F., Red Oak  
 Thomson, John A., Sioux City  
 ★Thornburn, Orval L., Ames  
 Thornburn, William V., Guthrie Center (L.M.)  
 Thornell, Joseph B., Council Bluffs  
 Thornton, Frank E., Iowa City  
 Thornton, John W., Lansing  
 Thornton, Thomas F., Waterloo  
 Thorson, John A., Dubuque  
 ★Throckmorton, James F., Des Moines  
 Throckmorton, Jeannette Dean, Des Moines (L.M.)  
 Throckmorton, Robert F., Des Moines (L.M.)  
 Throckmorton, Scott L., Chariton  
 Throckmorton, Tom B., Des Moines  
 Throckmorton, Tom D., Des Moines  
 Tice, Claude B., Mason City  
 Tidrick, Robert T., Iowa City  
 Tierney, Edmund J., Sioux City  
 Tilton, John J., Maquoketa  
 ★Tindall, Robert N., Coon Rapids  
 Tinley, Mary L., Council Bluffs  
 Tinley, Mathew A., Council Bluffs  
 ★Tinley, Robert E., Council Bluffs  
 Tinsman, Eugene, Orient  
 ★Titus, Elton L., Iowa City  
 ★Todd, Donald W., Guthrie Center  
 ★Todd, V. Stanley, Eldora  
 ★Tolliver, Hillard A., Charles City  
 Tombaugh, Frank M., Burlington (L.M.)  
 Tompkins, Erle D., Clarion  
 ★Toubes, Abraham A., Des Moines  
 ★Tracy, John S., Sioux City  
 Traister, John E., Eddyville  
 ★Trapasso, Tony J., Iowa City  
 Trey, Bernhard L., Marshalltown  
 ★Treyner, Jack V., Council Bluffs  
 Trimbo, Joseph H., Chelsea  
 Tripp, Leroy R., Sioux City  
 ★Trueblood, Clare A., Indianola  
 ★Trunnell, Thomas L., Waterloo  
 ★Trussell, Ray E., Iowa City  
 ★Turner, Howard V., Des Moines  
 Turner, Lee R., Renwick  
 Turner, William R., Fort Dodge  
 Tyler, Charles W., Polk City (L.M.)  
 Tyrrell, Joseph W., Des Moines (L.M.)  
 Unger, David, Des Moines  
 Updegraff, Charles L., Boone  
 Valiquette, Frank G., Sioux City  
 ★Van Besien, George J., Decorah  
 Van Camp, Thomas H., Breda  
 Vander Meulen, Herman C., Pella  
 Vander Stoep, Harry L., LeMars  
 Vander Veer, Frank L., Janesville  
 Van Duzer, William R., Casey  
 Van Epps, Clarence E., Iowa City  
 ★Van Epps, Eugene F., Clinton  
 Vangness, Ingmar C., Sioux City  
 ★Van Hale, Laurence A., Des Moines  
 Van Metre, Paul W., Rockwell City  
 Van Ness, Charles S., Peterson  
 ★Van Patten, Ernest M., Fort Dodge  
 Van Tiger, William H., Eldora  
 ★Van Werden, Benjamin D., Keokuk  
 Van Winkle, Howard L., Cedar Rapids  
 ★Van Zanten, Will, Brighton  
 ★Vaubel, Ellis K., Des Moines  
 Veldhouse, Richard H., Cedar Rapids  
 ★Veltman, John F., Winterset  
 Venable, George L., New Sharon  
 Vermeer, Gerritt E., Sheldon  
 Vernon, Fred G., Jewell  
 ★Vest, William M., Iowa City  
 Vesterberg, Peder H., Forest City (L.M.)  
 Victorine, Edward M., Cedar Rapids  
 Vineyard, Thomas L., Ottumwa  
 Vinson, Harry W., Ottumwa  
 Voigt, Ernest J., Burlington  
 Voigt, Frank O. W., Oskaloosa  
 Vollmer, Karl, Davenport (L.M.)  
 von Lackum, Herman J., Dysart (L.M.)  
 von Lackum, John K., Cedar Rapids  
 Vorpahl, Rudolph A., Cedar Rapids  
 Voss, Otto R., Davenport  
 Waddell, Jesse C., Paton  
 ★Waggoner, Charles V., Clinton  
 ★Wagner, Eugene C., Des Moines  
 Wagner, James A., Primghar  
 Wahrer, Frederick L., Marshalltown  
 Wailes, John W., Davis City (L.M.)  
 ★Wainwright, Maxwell T., Mapleton  
 Wakeman, Allie H., Fort Dodge  
 Walker, Charles C., Des Moines  
 Walker, Claude M., Kellerton  
 Walker, Harry L., Cedar Rapids  
 Walker, Herbert P., Clarion  
 Walker, John M., Dubuque  
 ★Walker, Thomas G., Riceville  
 Walker, Thomas S., Riceville (L.M.)  
 ★Wall, David, Ames  
 Wallace, Evelyn G., Iowa City  
 Wallace, Robert M., Algona  
 Wallahan, Jay H., Corning (L.M.)  
 Walliker, Wilbur M., Clinton  
 ★Walsh, William E., Hawkeye  
 Walston, Edwin B., Des Moines (L.M.)  
 ★Walton, Seth G., Hampton  
 Walvoord, William W., Dunlap  
 Wanamaker, Ambrose E., Hamburg (L.M.)  
 ★Wanamaker, Ambrose R., Hamburg  
 Ward, Dell W., Oelwein  
 ★Ward, Donovan F., Dubuque  
 Ward, Loraine W., Independence  
 Ward, Robert H., Iowa City  
 Ward, Thomas L., Arnolds Park  
 Ware, Matt, West Branch  
 ★Ware, Stephen C., Kalona  
 Warner, Emory D., Iowa City  
 Warner, Ervin W., Clarion  
 Warren, Elbert T., Stuart  
 Waterbury, Charles A., Jr., Waterloo  
 Waterbury, Charles A., Waterloo  
 Watkin, Clifford R., Sioux City  
 Watson, Elbert J., Diagonal (L.M.)  
 Watters, George H., Des Moines  
 Watters, Phil G., Des Moines  
 Watts, A. Fred, Creston  
 Watts, Clyde F., Marengo  
 ★Weatherly, Howard E., Iowa City  
 ★Weaver, Adam, Cumberland  
 Weaver, Kenneth H., Union  
 Webb, Daniel R., Jr., Cedar Rapids  
 Webb, Jonathan W., Bonaparte  
 Webb, Walter W., Iowa City  
 Webb, Waterman T., Fairfield  
 Weber, Frank N., Walnut  
 Weber, Leslie E., Wapello  
 Weber, William W., Pomeroy  
 Wedel, James R., Keokuk  
 Weems, Nev E., Paullina  
 Wehman, Edward J., Burlington  
 Weih, Elmer P., Clinton  
 ★Weinberg, Harry B., Davenport  
 Weingart, Julius S., Des Moines  
 Weir, Edward C., Council Bluffs  
 Weir, Matt B., Griswold  
 Weis, Howard A., Davenport  
 Wells, Benjamin S., Marshalltown  
 Wells, Fred L., Des Moines (L.M.)  
 ★Wells, Lloyd L., Clinton  
 ★Wells, Rodney C., Marshalltown  
 Wendell, Margaret R., Ames  
 Wentworth, Laydon S., Marble Rock  
 Wentsler, Norman E., Iowa City  
 Wentzien, Albert J., Tama  
 ★Werndorff, Karl R., Council Bluffs  
 Werner, Carl A. A., Albert City  
 Werner, Harold T., Fort Madison  
 Werts, Charles M., Des Moines (L.M.)  
 ★West, Alroy G., Council Bluffs  
 West, George H., Armstrong  
 West, Harry D., Des Moines  
 West, Walter E., Centerville  
 West, William W., Clarinda  
 Westenberger, Joseph C., St. Ansgar  
 ★Westly, Gabriel S., Manly  
 Westly, Soren S., Manly  
 Weston, Burton R., Mason City  
 Weston, Robert A., Des Moines  
 ★Wetrich, Max F., Manilla  
 ★Weyer, Joseph J., Lohrville  
 Whitaker, Ben T., Boone  
 White, Harold E., Knoxville  
 White, Paul A., Davenport  
 White, Seward, Olin  
 Whitehill, Nelson M., Boone  
 ★Whitehouse, William N., Ottumwa  
 Whitley, Ralph L., Osage (L.M.)  
 ★Whitmer, Lysle H., Wilton Junction  
 Whitmire, James E., Sumner  
 Whitmire, William L., Sumner  
 ★Wicks, Ralph L., Winterset  
 Wilcox, Delano, Malcom (L.M.)  
 Wilcox, Edgar B., Oskaloosa  
 Wilder, Agnes R., Atlantic  
 Wiley, Ralph E., Fontanelle  
 ★Wilke, Frank A., Woodward  
 Wilkinson, Levi J., Laurel  
 ★Willett, Wendell M., Des Moines  
 ★Willett, Wilton J., Carbon  
 Williams, Benjamin G., Oskaloosa  
 Williams, Edward B., Montezuma (L.M.)  
 Williams, Edward M., Oskaloosa  
 Williams, Edward M., Norway  
 Williams, Frank L., Wadsworth, Kansas  
 Williams, Frank S., Villisca  
 Williams, Nathan B., Belle Plaine  
 ★Williams, Robert L., Lakota  
 Wilson, Frank D., Sioux City  
 Wilson, Fred C., Colesburg  
 Wilson, Fredric L., Sioux City  
 Winder, Clifford D., Waterloo  
 \*Winkler, Frank P., Sibley  
 Winnett, Edwin B., Des Moines  
 Wintenburg, Edward J., Van Nuys, Calif.  
 Winter, Louis C., Wilton Junction  
 Wirsig, Arnold O., Shenandoah  
 ★Wirtz, Dwight C., Des Moines  
 Wise, James H., Cherokee  
 ★Witte, Herbert J., Marathon  
 Wolcott, Ruth F., Spirit Lake  
 Wolf, Henry H., Elgin  
 Wolf, Joseph, Glendale, California  
 Wolfe, Joseph H., Iowa City  
 Wolfe, Otis R., Marshalltown  
 ★Wolfe, Russell M., Marshalltown  
 ★Wolfe, Wilson C., Ottumwa  
 ★Wolfson, Harold, Kingsley  
 Wollmann, Walter W., Iowa City  
 ★Wolpert, Paul L., Onawa  
 Wolverton, Benjamin F., Cedar Rapids  
 Wood, John R., Wadena  
 Wood, Rollin W., Newton  
 Woodard, Floyd O., Des Moines  
 Woodbridge, James W., Emmetsburg  
 Woodhouse, George R., Vinton  
 ★Woodhouse, Keith W., Cedar Rapids  
 Woods, Andrew H., Iowa City  
 Woods, Arthur D., State Center  
 Woods, Herbert C., Tama  
 Woods, Hugh B., Des Moines  
 Woodward, Lee R., Mason City  
 Worley, Charles L., Ottumwa  
 Wray, Clarence M., Iowa Falls  
 ★Wray, Robert M., Cedar Rapids  
 Wright, Charles E., Clear Lake  
 Wright, John R., Las Vegas, New Mexico  
 Wright, Thomas D., Newton  
 Wright, Walter N., Rose Hill  
 Wubbena, Arthur C., Rock Rapids  
 ★Wurl, Otto A., Council Bluffs  
 Wurtzer, Ezra L., Clear Lake  
 ★Wyatt, Merlin R., Manning  
 Wyland, Asa O., Underwood (L.M.)  
 Yancey, Charles C., Sioux City  
 Yavorsky, George W., Belle Plaine (L.M.)  
 ★Yavorsky, William D., Cedar Rapids  
 Yocom, Albert L., Chariton  
 York, Nathan A., Lisbon  
 Yost, Charles G., Center Point  
 Young, Clifford W., Onawa  
 Young, Ernest R., Dubuque  
 Young, Henry C., Bloomfield (L.M.)  
 Young, Howard O., Marion  
 Young, James W., Des Moines  
 Youtz, Hiram L., Webster City  
 Zaeske, Dora E. K., Charter Oak  
 Zaeske, Edward V., Charter Oak  
 ★Zager, Lewis L., Oskaloosa  
 ★Ziffren, Sidney E., Iowa City  
 Zimmerer, Edmund G., Des Moines  
 Zinn, Edgar N., Fort Dodge  
 Zoller, Sherwood B., Fredericksburg  
 Zuercher, Arlo R., Cedar Rapids  
 ★Zukerman, Cecil M., Bettendorf

★Military Service  
 \*Deceased  
 (L.M.) Life Member



# Roster of Iowa Physicians in Military Service

As of June 24, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Treasure Island, Cal.)..Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (APO 230, New York, N. Y.)..Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.)..Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.).....A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.)..Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Trenton, N. J.).....Capt., A.U.S.  
Huston, M. D., Centerville (Camp Bowie, Texas).....Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 726, Seattle, Wash.)..Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (Camp Barkeley, Texas).....Capt., A.U.S.  
Bickley, J. W., Waterloo (APO San Francisco, Cal.) ..... Capt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas).....Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Ottumwa, Iowa).....Lt. Comdr., U.S.N.R.  
Ellyson, C. D., Waterloo (Lido Beach, N. Y.).....Lt., U.S.N.R.  
Ericsson, M. G., Cedar Falls (Camp Barkeley, Tex.) Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.)..Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
Ludwick, A. L., Waterloo (APO 813, New York, N. Y.) ..... Major, A.U.S.  
Marquis, F. M., Waterloo (APO 180, Los Angeles, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Banana River, Fla.)..Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.)..Major, A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.).....Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Ames, Iowa).....Lt., U.S.N.R.

## Boone County

Brewster, E. S., Boone (Camp Campbell, Ky.).....Major, A.U.S.  
Healy, M. J., Boone  
Shane, R. S., Pilot Mound (Des Moines, Ia.).....Lt. Col., A.U.S.

## Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.) ..... Major, A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.).....1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.)....Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (APO 9787, New York, N. Y.)..Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.)..Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho).....Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.)..Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.).....Major, A.U.S.

## Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash.)..Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rolfs, F. O., Parkersburg (Springfield, Mo.).....1st Lt., A.U.S.

## Calhoun County

Grinley, A. V., Rockwell City (APO 507, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.).....Capt., A.U.S.  
Peek, L. H., Lake City (Jefferson Barracks, Mo.)..Capt., A.U.S.

Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (APO 15260, San Francisco, Cal.) ..... Capt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Barkeley, Texas).....A.U.S.  
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) ..... Capt., A.U.S.  
Cochran, J. L., Carroll (Gulftport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Camp Swift, Texas).....Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.).....Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.).....A.U.S.  
Tindall, R. N., Coon Rapids (APO 948, Seattle, Wash.) ..... Major, A.U.S.  
Wyatt, M. R., Manning (De Ridder, La.).....Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (APO 627, New York, N. Y.) ..... Major, A.U.S.  
Longstreth, C. M., Atlantic (Norman, Okla.) Lt. Comdr., U.S.N.R.  
Needles, R. M., Atlantic (APO 526, New York, N. Y.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.).....Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.).....Lt., U.S.N.R.  
Mosher, M. L., West Branch (APO 560, New York, N. Y.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Fort Sam Houston, Texas) ..... Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.).....Capt., A.U.S.  
Egloff, W. C., Mason City (Chandler, Ariz.).....Capt., A.U.S.  
Flickinger, R. R., Mason City (Tuscaloosa, Ala.).....Capt., A.U.S.  
Hale, A. E., Dougherty (Camp Forrest, Tenn.).....Capt., A.U.S.  
Harris, R. H., Mason City (Dyersburg, Tenn.).....Capt., A.U.S.  
Harrison, G. E., Mason City (APO 365, New York, N. Y.) ..... Col., A.U.S.  
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (APO 9379, New York, N. Y.) ..... Capt., A.U.S.  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (Ayer, Mass.).....Capt., A.U.S.

## Cherokee County

Bullock, G. D., Washta (Camp Claiborne, La.)....Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.) Capt., A.U.S.  
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (Stewart Field, N. Y.) ..... Major, A.U.S.  
Murphy, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) ..... Major, A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.)..1st Lt., A.U.S.

## Clay County

Edgington, F. D., Spencer (Fort Devens, Mass.).....Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.).....Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Glesne, O. G., Monona (Knoxville, Iowa).....Capt., A.U.S.  
Rhomburg, E. B., Guttenberg (Camp Wallace, Texas) ..... Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Portland, Ore.).....Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.).....A.U.S.  
Christensen, E. D., Grand Mound (Iowa City)  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) ..... Capt., A.U.S.  
Hill, D. E., Clinton (Nashville, Tenn.).....Capt., A.U.S.  
King, R. C., Clinton (APO 403, New York, N. Y.).....Capt., A.U.S.

Lenaghin, R. T., Clinton (Fleet PO, San Francisco, Cal.)	Lt. Comdr., U.S.N.R.
Norment, J. E., Clinton (Washington, D. C.)	Lt. Comdr., U.S.N.R.
Riedesel, E. V., Wheatland (Fort Douglas, Utah)	Capt., A.U.S.
Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.)	Capt., A.U.S.
Speigel, I. J., Clinton (Clinton, Iowa)	1st Lt., A.U.S.
Van Epps, E. F., Clinton (APO 9921, New York, N. Y.)	Capt., A.U.S.
Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.)	Lt. Comdr., U.S.N.R.
Wells, L. L., Clinton (Clinton, Iowa)	Capt., A.U.S.
Crawford County	
Fee, C. H., Denison (Dunnellon, Fla.)	Capt., A.U.S.
Grau, A. H., Denison, (Fleet PO, San Francisco, Cal.)	Lt. Comdr., U.S.N.R.
Maire, E. J., Vail (Camp Haan, Cal.)	Capt., A.U.S.
Wetrich, M. F., Manilla (APO 986, Seattle, Wash.)	Capt., A.U.S.
Dallas-Guthrie Counties	
Byrnes, A. W., Guthrie Center (Fort Custer, Mich.)	Major, A.U.S.
Fail, C. S., Adel (Pacific Beach, Wash.)	Lt., U.S.N.R.
Margolin, J. M., Perry (Camp Cooke, Cal.)	Capt., A.U.S.
McGilvra, R. I., Guthrie Center (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Mullmann, A. J., Adel (Milwaukee, Wis.)	Capt., A.U.S.
Nicoll, C. A., Panora (Camp Campbell, Ky.)	Capt., A.U.S.
Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Todd, D. W., Guthrie Center (APO 2, New York, N. Y.)	Capt., A.U.S.
Wilke, F. A., Woodward (APO 627, New York, N. Y.)	Capt., A.U.S.
Davis County	
Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.)	Capt., A.U.S.
Gilfillan, G. W., Bloomfield (Oceanside, Cal.)	Lt. Comdr., U.S.N.R.
Decatur County	
Gamet, E. E., Lamoni (APO New York, N. Y.)	Capt., A.U.S.
Delaware County	
Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.)	Capt., A.U.S.
Clark, R. E., Manchester (APO 419, New York, N. Y.)	Capt., A.U.S.
Des Moines County	
Eigenfeld, M. L., Burlington (Camp Bowie, Texas)	1st Lt., A.U.S.
Heitzman, P. O., Burlington (Fort Baker, Cal.)	Capt., A.U.S.
Jenkins, G. D., Burlington (West Point, N. Y.)	Lt. Col., A.U.S.
Lohmann, C. J., Burlington (Fort Lewis, Wash.)	Major, A.U.S.
McKitterick, J. C., Burlington (Hamilton, R. I.)	Comdr., U.S.N.R.
Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.)	Capt., A.U.S.
Sage, E. C., Burlington (Shoemaker, Cal.)	Lt. Comdr., U.S.N.R.
Dickinson County	
Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Henning, G. G., Milford (Camp Adair, Ore.)	Major, A.U.S.
Nicholson, C. G., Spirit Lake (Sawtelle, Cal.)	Capt., A.U.S.
Rodawig, D. F., Spirit Lake (APO 600, New York, N. Y.)	Major, A.U.S.
Dubuque County	
Beddoes, M. G., Cascade (APO 932, San Francisco, Cal.)	Capt., A.U.S.
Conzett, D. C., Dubuque (APO 645, New York, N. Y.)	Lt. Col., A.U.S.
Cunningham, J. C., Dubuque (Fairfield, Ohio)	Capt., A.U.S.
Edstrom, Henry, Dubuque (APO 645, New York, N. Y.)	Major, A.U.S.
Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.)	Capt., A.U.S.
Hall, C. B., Dubuque (Lubbock, Texas)	1st Lt., A.U.S.
Knoll, A. H., Dubuque (San Francisco, Cal.)	Major, A.U.S.
Langford, W. R., Epworth (APO 948, Seattle, Wash.)	Capt., A.U.S.
Lavery, H. B., Dubuque (Washington, D. C.)	Lt. Col., A.U.S.
Leik, D. W., Dubuque (Wichita Falls, Tex.)	1st Lt., A.U.S.
Mueller, J. J., Dubuque (APO 230, New York, N. Y.)	Capt., A.U.S.
Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.)	Lt. Comdr., U.S.N.R.
Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Paulus, J. W., Dubuque (APO San Francisco, Cal.)	1st Lt., A.U.S.
Plankers, A. G., Dubuque (APO 758, New York, N. Y.)	Major, A.U.S.
Quinn, E. P., Dubuque (Brentwood, L. I.)	Major, A.U.S.
Scharle, Theodore, Dubuque (APO Seattle, Wash.)	Capt., A.U.S.
Schueller, C. J., Dubuque (APO 758, New York, N. Y.)	1st Lt., A.U.S.
Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.)	Major, A.U.S.
Smith, C. W., Dubuque (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Steffens, L. F., Dubuque (Camp Chaffee, Ark.)	Lt. Col., A.U.S.
Straub, J. J., Dubuque (Corpus Christi, Texas)	Lt., U.S.N.R.
Ward, D. F., Dubuque (Great Lakes, Ill.)	Lt. Comdr., U.S.N.R.
Emmet County	
Clark, J. P., Estherville (APO New York, N. Y.)	Capt., A.U.S.
Collins, L. E., Estherville (Camp Dodge, Iowa)	A.U.S.
Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.)	Lt. Comdr., U.S.N.R.
Fayette County	
Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Henderson, W. B., Oelwein (St. Louis, Mo.)	Major, A.U.S.
Hess, A. M., West Union (Santa Fe, N. Mex.)	Capt., A.U.S.
Sulzbach, J. F., Oelwein	
Walsh, W. E., Hawkeye (Port Chicago, Cal.)	Lt. Comdr., U.S.N.R.
Floyd County	
Baltzell, W. C., Charles City (APO 2, New York, N. Y.)	Major, A.U.S.
Flater, N. C., Floyd (APO 183, Los Angeles, Cal.)	Capt., A.U.S.
Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Mackie, D. G., Charles City (APO 9589, New York, N. Y.)	1st Lt., A.U.S.
Miner, J. B., Jr., Charles City (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Tolliver, H. A., Charles City (APO 91, New York, N. Y.)	Capt., A.U.S.
Franklin County	
Byers, W. L., Sheffield (Jefferson Barracks, Mo.)	1st Lt., A.U.S.
Hedgecock, L. E., Hampton (Fleet PO, San Francisco, Cal.)	Lt. Comdr., U.S.N.R.
Randall, W. L., Hampton (Oceanside, Cal.)	Lt., U.S.N.R.
Walton, S. G., Hampton (APO New York, N. Y.)	Capt., A.U.S.
Fremont County	
Kerr, W. H., Hamburg (Camp Phillips, Kan.)	Capt., A.U.S.
Marrs, W. D., Tabor (Randolph Field, Texas)	Capt., A.U.S.
Powell, R. A., Farragut (Great Lakes, Ill.)	Lt. (jg), U.S.N.R.
Wanamaker, A. R., Hamburg (Los Angeles, Cal.)	Capt., A.U.S.
Greene County	
Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.)	Capt., A.U.S.
Castles, W. A., Rippey (APO 958, San Francisco, Cal.)	Major, A.U.S.
Hanson, L. C., Jefferson (APO 728, New York, N. Y.)	Capt., A.U.S.
Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.)	Lt. Comdr., U.S.N.R.
Limburg, J. I., Jr., Jefferson (APO 503, San Francisco, Cal.)	Major, A.U.S.
Lohr, P. E., Churdan (San Diego, Cal.)	A.U.S.
Grundy County	
Rose, J. E., Grundy Center (Des Moines, Iowa)	Lt. Comdr., U.S.N.R.
Hamilton County	
Buxton, O. C., Webster City (Fort Ord, Cal.)	1st Lt., A.U.S.
Howar, B. F., Jewell (APO 514, New York, N. Y.)	Major, A.U.S.
James, D. W., Kamrar (APO 782, New York, N. Y.)	Capt., A.U.S.
Lewis, W. B., Webster City (APO 383, New York, N. Y.)	Major, A.U.S.
Mooney, F. P., Jewell (London, England)	Capt., R.A.M.C.
Paschal, G. A., Williams (Camp Barkeley, Texas)	Capt., A.U.S.
Patterson, R. A., Webster City (San Diego, Cal.)	Lt. Comdr., U.S.N.R.
Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.)	Capt., A.U.S.
Thompson, E. D., Webster City (Biloxi, Miss.)	Capt., A.U.S.
Hancock-Winnebago Counties	
Dolmage, G. H., Buffalo Center (Nashville, Tenn.)	Capt., A.U.S.
Dulmes, A. H., Klemme (APO 1778, New York, N. Y.)	Capt., A.U.S.
Eller, L. W., Kanawha (APO 302, New York, N. Y.)	Capt., A.U.S.
Irish, T. J., Forest City (Farragut, Idaho)	Lt. Comdr., U.S.N.R.
Shaw, D. F., Britt (Delhart, Tex.)	Major, A.U.S.
Thomas, C. W., Forest City (Camp Crowder, Mo.)	Capt., A.U.S.
Hardin County	
Burgess, A. W., Iowa Falls (Jacksonville, Fla.)	Lt., U.S.N.R.
Houlihan, F. W., Ackley (APO 860, New York, N. Y.)	1st Lt., A.U.S.
Jansonius, J. W., Eldora (APO 4834, New York, N. Y.)	Capt., A.U.S.
Johnson, R. J., Iowa Falls (Ft. Sill, Okla.)	Capt., A.U.S.
Johnson, W. A., Alden (Orlando, Fla.)	Capt., A.U.S.
Shurts, J. J., Eldora (Camp Roberts, Cal.)	1st Lt., A.U.S.
Stenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.)	Lt., U.S.N.R.
Todd, V. S., Eldora (APO 9641, San Francisco, Cal.)	Capt., A.U.S.
Harrison County	
Bergstrom, A. C., Missouri Valley (Ft. Benning, Ga.)	A.U.S.
Burbridge, G. E., Logan (APO 511, New York, N. Y.)	Major, A.U.S.
Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)	Capt., A.U.S.
Heise, C. A., Jr., Missouri Valley (Ames, Iowa)	Lt., U.S.N.R.
Tamisiea, F. X., Missouri Valley (Jefferson Barracks, Mo.)	Capt., A.U.S.
Henry County	
Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.)	Major, A.U.S.



Dwankowski, Carl, Mt. Pleasant (APO 505, New York, N. Y.).....Capt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (Fort McPherson, Ga.).....Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (Yuma, Ariz.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.  
 Martin, J. W., Holstein (Montgomery, Ala.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

#### Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.  
 Gittler, Ludwig, Fairfield (APO 1001, New York, N. Y.).....Lt. Col., A.U.S.  
 Graber, H. E., Fairfield Galesburg, Ill.....Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

#### Johnson County

Agnew, J. W., Iowa City (Trinidad, Colo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.  
 Boiler, W. F., Iowa City (Fort Leonard Wood, Mo.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.  
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (San Francisco, Cal.).....Lt., U.S.N.R.  
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.  
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Key West, Fla.).....Lt., U.S.N.R.  
 Dörner, R. A., Iowa City (APO 534, New York, N. Y.).....Capt., A.U.S.  
 Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Emmons, M. B., Iowa City (Abilene, Texas).....Capt., A.U.S.  
 Flax, Ellis, Iowa City (Fort Jackson, S. Car.).....1st Lt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourn, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.  
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York, N. Y.).....Major, A.U.S.  
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.  
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (Camp Forrest, Tenn.).....Capt., A.U.S.  
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 January, L. E., Iowa City (McCook, Nebr.).....Capt., A.U.S.  
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.  
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Longwell, F. H., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.  
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagrffy, S. F., Iowa City (Memphis, Tenn.).....Lt. (jg), U.S.N.R.  
 Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 1001, New York, N. Y.).....Lt. Col., A.U.S.  
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.  
 Sells, R. L., Jr., Iowa City (South San Francisco, Cal.).....Capt., A.U.S.  
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.

Stump, R. B., Iowa City (Fort Leonard Wood, Mo.).....Capt., A.U.S.  
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.  
 Trapasso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.  
 Trussell, R. E., Iowa City (Ft. McPherson, Ga.).....1st Lt., A.U.S.  
 Vest, W. M., Iowa City (APO 928, San Francisco, Cal.).....Capt., A.U.S.  
 Ward, R. H., Iowa City (Cherry Point, N. C.).....Lt. Comdr., U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 923, San Francisco, Cal.).....1st Lt., A.U.S.  
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

#### Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.  
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.  
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Hendricks, A. B., Iowa City (Farragut, Idaho).....Lt., U.S.N.  
 Hovis, Wm., Iowa City (San Diego, Cal.).....Lt. (jg), U.S.N.R.  
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.  
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.  
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Treasure Island, Cal.).....Lt. (jg), U.S.N.R.  
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.  
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.  
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Moen, B. H., Iowa City.....A.U.S.  
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Odell, Lester, Iowa City (Alameda, Cal.).....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.  
 Pulliam, R. L., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.  
 Randall, C. G., Iowa City.....A.U.S.  
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.  
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.  
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shapiro, S. I., Iowa City.....A.U.S.  
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.  
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.  
 Skouge, O. T., Iowa City.....A.U.S.  
 Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.  
 Watters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.  
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.  
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.  
 Willumsen, H. C., Iowa City (Chico, Cal.).....Capt., A.U.S.  
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.  
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Zahrt, N. E., Iowa City (Miami Beach, Fla.).....1st Lt., A.U.S.  
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

#### Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.  
 Doyle, J. L., Sigourney (Camp Berkeley, Texas).....A.U.S.  
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.  
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.  
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.).....A.U.S.

#### Kossuth County

Clapsaddle, D. W., Burt (APO 519, New York, N. Y.).....Capt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Williams, R. L., Lakota (San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) ..... Capt., A.U.S.  
 Cooper, R. E., Keokuk (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.  
 Johnstone, A. A., Keokuk (Camp Fannin, Texas) ..... Col., A.U.S.  
 McKee, T. L., Keokuk (APO 928, San Francisco, Cal.) ..... Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.  
 Rankin, J. R., Keokuk (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) ..... Capt., A.U.S.  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) ..... Capt., A.U.S.  
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Lincoln County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) ..... Major, A.U.S.  
 Berney, P. W., Cedar Rapids (San Francisco, Cal.) ..... Capt., A.U.S.  
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.) ..... Capt., A.U.S.  
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) ..... Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) ..... A.U.S.  
 Courter, W. O., Springfield (APO 464, New York, N. Y.) ..... Major, A.U.S.  
 Crew, P. I., Marion (Monroe, La.) ..... Capt., A.U.S.  
 Downing, J. S., Cedar Rapids (APO 713, Unit II, San Francisco, Cal.) ..... Major, A.U.S.  
 Dunn, F. C., Cedar Rapids (Kearney, Nebr.) ..... Major, A.U.S.  
 Gearhart, Merriam, Springfield (Phoenixville, Pa.) ..... Major, A.U.S.  
 Halpin, L. J., Cedar Rapids (Atlanta, Ga.) ..... Major, A.U.S.  
 Hecker, J. T., Cedar Rapids (Oxnard, Cal.) ..... 1st Lt., A.U.S.  
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Keith, E. J., Marion (Menlo Park, Cal.) ..... Major, A.U.S.  
 Keigh, J. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Kruckenberg, W. G., Mount Vernon (Portsmouth, Va.) ..... Lt., U.S.N.R.  
 Leedom, Charles, Springfield ..... Major, A.U.S.  
 Locher, R. C., Cedar Rapids (Camp Swift, Texas) ..... Major, A.U.S.  
 †MacDougall, R. F., Cedar Rapids (APO 9057, New York, N. Y.) ..... Capt., A.U.S.  
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) ..... Major, A.U.S.  
 McQuiston, J. S., Cedar Rapids (Salina, Kan.) ..... Major, A.U.S.  
 Meffert, C. B., Cedar Rapids (Nashville, Tenn.) ..... Major, A.U.S.  
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) ..... Major, A.U.S.  
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) ..... 1st Lt., A.U.S.  
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) ..... Major, A.U.S.  
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Lt. Comdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (Camp Blanding, Fla.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stansbury, J. R., Cedar Rapids (APO 941, Seattle, Wash.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO 957, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 34, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) ..... Lt. Comdr., U.S.N.

**Louisiana County**

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Lucas County**

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

**Lyon County**

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Major, A.U.S.  
 †Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Offag 64, Germany) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 700, New York, N. Y.) ..... Capt., A.U.S.

**Madison County**

Boden, H. N., Truro (Fresno, Cal.) ..... Capt., A.U.S.  
 Chesnut, P. F., Winterset (Salem, Ore.) ..... Capt., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Lt. Col., A.U.S.

**Mahaska County**

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) ..... Major, A.U.S.

Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Mare Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Lemon, K. M., Oskaloosa ..... 1st Lt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) ..... Capt., A.U.S.

**Marion County**

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) ..... Major, A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Bastrop, Texas) ..... 1st Lt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

**Marshall County**

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) Major, A.U.S.  
 Meyer, M. G., Marshalltown (Ft. Geo. Meade, Md.) Major, A.U.S.  
 Noonan, J. J., Marshalltown (APO 928, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 730, Seattle, Wash.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (APO 520, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (Portland, Ore.) ..... Capt., A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) ..... 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (Fort Riley, Kan.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Mills County**

DeYoung, W. A., Glenwood (APO 813, New York, N. Y.) ..... Capt., A.U.S.  
 Margaret, E. C., Glenwood (APO 462, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 230, New York, N. Y.) ..... Capt., A.U.S.

**Mitchell County**

Culbertson, R. A., St. Ansgar (Camp Campbell, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (Memphis, Tenn.) ..... Major, A.U.S.  
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

**Monona County**

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... Capt., A.U.S.  
 Anderson, S. N., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 928, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gaukel, L. A., Onawa (Manhattan, Kan.) ..... Capt., A.U.S.  
 †Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Rosecrans, Cal.) ..... A.U.S.  
 Wainwright, M. T., Mapleton (APO 939, Seattle, Wash.) ..... A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

**Monroe County**

Gilliland, C. H., Albia (Quonset Point, R. I.) ..... Lt., U.S.N.R.  
 Heimann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Capt., A.U.S.  
 Smith, R. A., Albia (New Cumberland, Pa.) ..... Capt., A.U.S.

**Montgomery County**

Bastron, H. C., Red Oak (APO 953, San Francisco, Cal.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) ..... Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

**Muscatine County**

Ady, A. E., West Liberty (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) ..... Capt., A.U.S.  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO, Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) ..... Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Lt. Col., A.U.S.



**O'Brien County**

Getty, E. B., Primghar (APO 117, New York, N. Y.) ..... Capt., A.U.S.  
 Hayne, W. W., Paullina (APO 638, New York, N. Y.) ..... Capt., A.U.S.  
 Moen, S. T., Hartley (APO 689, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

**Osceola County**

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

**Page County**

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Bossingham, E. N., Clarinda (Fort Ord, Cal.) ..... Major, A.U.S.  
 Bunch, H. McK., Shenandoah (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 †Burdick, F. D., Shenandoah (APO, New York, N. Y.) ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (Denver, Colo.) ..... Major, A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) ..... Capt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

**Palo Alto County**

Davey, W. P., Emmetsburg (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.

**Plymouth County**

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... Capt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

**Pocahontas County**

Blair, F. L., Jr., Fonda (San Antonio, Texas) ..... Lt., U.S.N.R.  
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.

**Polk County**

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Capt., A.U.S.  
 Bates, M. T., Des Moines (Corona, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Riverside, Cal.) ..... Capt., A.U.S.  
 Brown, A. W., Des Moines (Rochester, Minn.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (Fort Bliss, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 †Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsfef-Offizierlager XXI B, Deutschland [Allemagne]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Vulcan, Alberta, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (Concordia, Kan.) ..... 1st Lt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
 Connell, J. R., Des Moines ..... Capt., A.U.S.  
 Corn, H. H., Des Moines (St. Louis, Mo.) ..... Capt., A.U.S.  
 Coughlan, D. W., Des Moines (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) ..... Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) ..... 1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Fort Snelling, Minn.) ..... 1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 628, New York, N. Y.) ..... Major, A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas) ..... Capt., A.U.S.  
 Ellis, H. G., Des Moines (Kearney, Nebr.) ..... Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas) ..... Major, A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Fracasse, John, Des Moines ..... 1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines ..... Lt. Comdr., U.S.N.R.  
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) ..... Major, A.U.S.  
 Gломset, D. A., Des Moines (APO 9826 New York, N. Y.) ..... Capt., A.U.S.  
 Goldberg, Louie, Des Moines (APO 9764, San Francisco, Cal.) ..... Capt., A.U.S.

Gordon, A. M., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Gurau, H. H., Des Moines (Santa Ana, Cal.) ..... Capt., A.U.S.  
 Haines, D. J., Des Moines (APO 913, San Francisco, Cal.) ..... Capt., A.U.S.  
 Harris, D. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.) ..... 1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 James, A. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Los Angeles, Cal.) ..... Capt., A.U.S.  
 Kelley, E. J., Des Moines (Marshall, Mo.) ..... Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.) ..... Lt. Col., A.U.S.  
 Klocksiem, H. L., Des Moines ..... Lt. (jg), U.S.N.R.  
 Kottke, E. E., Des Moines (Temple, Texas) ..... Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.) ..... 1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Lederman, James, Des Moines ..... 1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.) ..... Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (Jackson, Miss.) ..... 1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) ..... 1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.) ..... 1st Lt., A.U.S.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa) ..... Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (Ft. Sam Houston, Texas) ..... Major, A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines ..... 1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) ..... Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Morden, R. P., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Mumma, C. S., Des Moines (Los Angeles, Cal.) ..... Major, A.U.S.  
 Murphy, J. H., Des Moines (Barstow, Cal.) ..... Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.) ..... Major, A.U.S.  
 Noun, L. J., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Noun, M. H., Des Moines (APO 514, New York, N. Y.) ..... Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.) ..... 1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.) ..... Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 9301, New York, N. Y.) ..... Capt., A.U.S.  
 Penn, E. C., West Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Pfeiffer, E. P., Des Moines (Springfield, Mo.) ..... Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corona, Cal.) ..... Lt., U.S.N.R.  
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Powell, L. D., Des Moines (Long Beach, Cal.) ..... Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Priestley, J. B., Des Moines (Camp Phillips, Kan.) ..... Major, A.U.S.  
 Purdy, W. O., Des Moines (Camp Howze, Texas) ..... Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.) ..... Major, A.U.S.  
 Robinson, V. C., Des Moines (Tampa, Fla.) ..... Major, A.U.S.  
 Rotkow, M. J., Des Moines (Louisville, Ky.) ..... Capt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.  
 Shepherd, L. K., Des Moines (APO New York, N. Y.) ..... Major, A.U.S.  
 Shifter, H. K., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.) ..... 1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (New Orleans, La.) ..... 1st Lt., U.S.P.H.S.  
 Smead, H. H., Des Moines (APO 595, New York, N. Y.) ..... Capt., A.U.S.  
 Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.) ..... Capt., A.U.S.  
 Snodgrass, R. W., Des Moines (Fort Rosecrans, Cal.) ..... Capt., A.U.S.  
 Snyder, G. E., Grimes (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
 Sohm, H. A., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sorensen, R. M., Des Moines (Topeka, Kan.) ..... Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.

Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.  
Stickler, Robert, Des Moines (Fort Benning, Ga.)...Capt., A.U.S.  
Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.  
Throckmorton, J. F., Des Moines (APO 403, New York,  
N. Y.).....Major, A.U.S.  
Toube, A. A., Des Moines (APO 635, New York,  
N. Y.).....Capt., A.U.S.  
Turner, H. V., Des Moines (Camp Fannin, Texas)....Capt., A.U.S.  
Updegraff, Thomas, Des Moines (Spokane, Wash.)...1st Lt., A.U.S.  
Van Hale, L. A., Des Moines (APO 515, New York,  
N. Y.).....Capt., A.U.S.  
Vaubel, E. K., Des Moines (Silver Spring, Md.)....Capt., A.U.S.  
Wagner, E. C., Des Moines (Washington, D. C.)...1st Lt., A.U.S.  
Willett, W. M., Des Moines (APO 873, New York,  
N. Y.).....Capt., A.U.S.  
Wirtz, D. C., Des Moines (Fleet PO, San Francisco,  
Cal.).....Lt. Comdr., U.S.N.R.  
Zarchy, A. C., Des Moines (Camp Cooke, Cal.)....Capt., A.U.S.

Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York,  
N. Y.).....Major, A.U.S.  
Cogley, J. P., Council Bluffs (APO 322, Unit I, San Francisco,  
Cal.).....Lt. Col., A.U.S.  
Collins, R. M., Council Bluffs (Fleet PO, San Francisco,  
Cal.).....Lt., U.S.N.R.  
Dean, A. M., Council Bluffs (Pensacola, Fla.)...Comdr., U.S.N.R.  
Edwards, C. V., Council Bluffs (Olathe, Kan.).....Lt. Comdr., U.S.N.R.  
Floersch, E. B., Council Bluffs (Bremerton,  
Wash.).....Lt. Comdr., U.S.N.R.  
Hennessy, J. D., Council Bluffs (Fleet PO, San Francisco,  
Cal.).....Lt., U.S.N.R.  
Jensen, A. L., Council Bluffs (Temple, Texas)....Lt. Col., A.U.S.  
Klok, G. J., Council Bluffs (Fleet PO, San Diego,  
Cal.).....Lt., U.S.N.R.  
Kurtz, C. J., Council Bluffs (Camp Crowder, Mo.)...Capt., A.U.S.  
Limbirt, E. M., Council Bluffs (APO 9907, New York,  
N. Y.).....Capt., A.U.S.  
Maiden, S. D., Council Bluffs (Camp Hood, Texas) .Major, A.U.S.  
Martin, L. R., Council Bluffs (APO 923, San Francisco,  
Cal.).....Capt., A.U.S.  
Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.  
Moskovitz, J. M., Council Bluffs (APO 5255, New York,  
N. Y.).....Capt., A.U.S.  
Rosenfeld, R. T., Council Bluffs (Staten Island,  
N. Y.).....Capt., A.U.S.  
Sternhill, Isaac, Council Bluffs (Springfield, Mo.)...Capt., A.U.S.  
Tinley, R. E., Council Bluffs (APO 600, New York,  
N. Y.).....Capt., A.U.S.  
Trenor, J. V., Council Bluffs (Fleet PO, San Francisco,  
Cal.).....Comdr., U.S.N.R.  
West, A. G., Council Bluffs (APO 552, New York,  
N. Y.).....1st Lt., A.U.S.  
Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.  
Wurl, O. A., Council Bluffs (APO 871, New York,  
N. Y.).....Capt., A.U.S.

Poweshiek County

Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.) .Major, A.U.S.  
Hickerson, L. C., Brooklyn (San Francisco, Cal.)...1st Lt., A.U.S.  
Korfmacher, E. S., Grinnell (San Francisco,  
Cal.).....Capt., A.U.S.  
Niemann, T. V., Brooklyn (APO San Francisco,  
Cal.).....Capt., A.U.S.  
Parish, J. R., Grinnell (Fleet PO, San Francisco,  
Cal.).....Lt. Comdr., U.S.N.R.  
Somers, P. E., Grinnell (St. Louis, Mo.).....1st Lt., A.U.S.

Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.)....Major, A.U.S.

Sac County

Bassett, G. H., Sac City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
Deters, D. C., Schaller (APO 1001, New York,  
N. Y.).....Capt., A.U.S.  
Evans, W. I., Sac City (APO 9212, New York,  
N. Y.).....Capt., A.U.S.  
Klockslem, R. G., Odebolt (San Diego, Cal.).....Lt., U.S.N.R.  
Neu, H. N., Sac City (APO 708, San Francisco,  
Cal.).....Major, A.U.S.

Scott County

Baker, R. W., Davenport (APO 511, New York,  
N. Y.).....Capt., A.U.S.  
Balzer, W. J., Davenport (APO 939, Seattle, Wash.) Capt., A.U.S.  
Bishop, J. F., Davenport (APO 729, Seattle,  
Wash.).....Capt., A.U.S.  
Block, L. A., Davenport (Clinton, Iowa).....Major, A.U.S.  
Boden, W. C., Davenport (APO 3760, New York,  
N. Y.).....Capt., A.U.S.  
Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.  
Brown, D. H., Davenport (Waycross, Ga.).....Capt., A.U.S.  
Brown, M. J., Davenport (Camp Hale, Colo.)....Major, A.U.S.  
Carey, E. T., Davenport (APO 928, San Francisco,  
Cal.).....1st Lt., A.U.S.  
Christiansen, C. C., Dixon (APO 961, San Francisco,  
Cal.).....Capt., A.U.S.  
Coleman, Tom, Davenport (Camp Stewart, Ga.)...1st Lt., A.U.S.  
Cummins, G. M., Jr., Davenport.....1st Lt., A.U.S.

Decker, C. E., Davenport (Oklahoma City,  
Okla.).....1st Lt., A.U.S.  
Evans, H. J., Davenport (APO 9826, New York,  
N. Y.).....Capt., A.U.S.  
Gibson, P. E., Davenport (Palm Springs, Cal.)...Major, A.U.S.  
Goenne, Wm., Jr., Davenport (Camp White, Ore.)...1st Lt., A.U.S.  
Hurevitz, H. M., Davenport (APO 370, New York,  
N. Y.).....Major, A.U.S.  
Hurteau, Everett, Davenport (APO 647, New York,  
N. Y.).....1st Lt., A.U.S.  
Hurteau, W. W., Davenport (Camp Barkeley,  
Texas).....Major, A.U.S.  
Kimberly, L. W., Davenport (Hines, Ill.).....Capt., A.U.S.  
Krakauer, Max, Davenport (Camp Ellis, Ill.)....Capt., A.U.S.  
Kuhl, A. B., Jr., Davenport (Carlisle Barracks,  
Pa.).....1st Lt., A.U.S.  
LaDage, L. H., Davenport (APO 180, Los Angeles,  
Cal.).....Major, A.U.S.  
Lorfeld, G. W., Davenport (Columbus, Ohio)....Capt., A.U.S.  
Marker, J. I., Davenport (Camp Barkeley, Texas) ...Col., M.R.C.  
McMeans, T. W., Davenport (APO 514, New York,  
N. Y.).....1st Lt., A.U.S.  
Neufeld, R. J., Davenport (APO 9575, San Francisco,  
Cal.).....Capt., A.U.S.  
Perkins, R. M., Davenport (Carlisle Barracks,  
Pa.).....1st Lt., A.U.S.  
Sheeler, I. H., Davenport (Camp Crowder, Mo.)...Capt., A.U.S.  
Shorey, J. R., Davenport (APO 647, New York,  
N. Y.).....Capt., A.U.S.  
Smazal, S. F., Davenport (APO 230, New York,  
N. Y.).....Capt., A.U.S.  
Sorenson, A. C., Davenport (Oakland, Cal.)...Lt. Comdr., U.S.N.R.  
Sunderbruch, J. H., Davenport (APO 322, San Francisco,  
Cal.).....Capt., A.U.S.  
Weinberg, H. B., Davenport (Fort Benning, Ga.) .Major, A.U.S.  
Zukerman, C. M., Bettendorf (Chicago, Ill.)....Capt., A.U.S.

Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho) .Lt. Comdr., U.S.N.R.  
Griffith, W. O., Shelby (APO 9490, New York,  
N. Y.).....Capt., A.U.S.  
McGowan, J. P., Harlan (Fleet PO, San Francisco,  
Cal.).....Lt. Comdr., U.S.N.R.

Sioux County

Gleysteen, R. R., Alton (Silver Spring, Md.)...Lt. Comdr., U.S.N.  
Grossmann, E. B., Orange City (APO 572, New York,  
N. Y.).....Capt., A.U.S.  
Larson, M. O., Hawarden (Camp Bowie, Texas) .Major, A.U.S.  
Oelrich, A. M., Hull (APO New York, N. Y.)...1st Lt., A.U.S.  
Oelrich, C. D., Sioux Center (Buckley Field, Colo.) 1st Lt., A.U.S.

Story County

Conner, J. D., Nevada (APO 708, San Francisco,  
Cal.).....Capt., A.U.S.  
Fellows, J. G., Ames (Camp Breckenridge, Ky.)...Major, A.U.S.  
Lekwa, A. H., Story City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
McFarland, G. E., Jr., Ames (San Pedro, Cal.)...Lt., U.S.N.R.  
McFarland, J. E., Ames (Farragut, Idaho) .Lt. Comdr., U.S.N.R.  
Rosebrook, L. E., Ames (Del Valle, Texas).....Capt., A.U.S.  
Sperow, W. B., Nevada (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
Thorburn, O. L., Ames (Alamagordo, N. Mex.)...Major, A.U.S.  
Wall, David, Ames (Carlisle Barracks, Pa.).....1st Lt., A.U.S.

Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.) Capt., A.U.S.  
Boller, G. C., Traer (Camp Bowie, Texas)  
Dobias, S. G., Chelsea (Vancouver, Wash.).....Capt., A.U.S.  
Havlik, A. J., Tama (San Diego, Cal.).....Lt., U.S.N.R.  
Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.)  
Standefor, J. M., Tama (Des Moines, Iowa).....Lt., U.S.N.R.

Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco,  
Cal.).....1st Lt., A.U.S.

Union County

Beatty, H. G., Creston (New Orleans, La.).....1st Lt., A.U.S.  
Paragas, M. R., Creston (APO 9633, San Francisco,  
Cal.).....Capt., A.U.S.  
Ryan, C. J., Creston (Scribner, Neb.).....Capt., A.U.S.

Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York,  
N. Y.).....1st Lt., A.U.S.  
Brody, Sidney, Ottumwa (APO 366, New York,  
N. Y.).....Lt. Col., A.U.S.  
Giffilan, C. D. N., Eldon (Battle Creek, Mich.)...Capt., A.U.S.  
Hughes, R. O., Ottumwa (Coronado, Cal.)...Lt. Comdr., U.S.N.R.  
Moore, G. C., Ottumwa (Camp Butner, N. C.)....Capt., A.U.S.  
Nelson, F. L., Jr., Ottumwa.....Capt., A.U.S.  
Prewitt, L. H., Ottumwa (Atlantic City, N. J.)...Major, A.U.S.  
Selman, R. J., Ottumwa (El Paso, Texas).....Lt. Col., A.U.S.  
Struble, G. C., Ottumwa (Fort Harrison, Ind.)...Lt. Col., A.U.S.  
Whitthouse, W. N., Ottumwa (San Diego,  
Cal.).....Lt. Comdr., U.S.N.R.  
Wolfe, W. C., Ottumwa (Fleet PO, San Francisco,  
Cal.).....Lt. (jg) U.S.N.R.

Warren County

Fullgrabe, E. A., Indianola (San Diego, Cal.)....Lt., U.S.N.R.  
Hoffman, G. R., Lacona (Camp San Louis Obispo,  
Cal.).....Capt., A.U.S.



Shaw, E. E., Indianola (APO 834, New Orleans, N. Y.) ..... Capt., A.U.S.  
 Trueblood, C. A., Indianola (APO 730, Seattle, Wash.) ..... Capt., A.U.S.

#### Washington County

Boice, C. L., Washington (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 Mast, T. M., Washington (Portland, Ore.) ..... Lt., U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.) ..... 1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ware, S. C., Kalona (APO 15275, New York, N. Y.) ..... Capt., A.U.S.

#### Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) ..... Capt., A.U.S.

#### Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.) ..... Capt., A.U.S.  
 Burch, E. S., Dayton (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Burleson, M. W., Fort Dodge (Monterey, Cal.) ..... 1st Lt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa) ..... Major, A.U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.) ..... Lt. Comdr., U.S.N.R.  
 Joyner, N. M., Fort Dodge (Brooklyn Field, Ala.) ..... Lt. Comdr., U.S.N.R.  
 Kluever, H. C., Fort Dodge (Pensacola, Fla.) ..... Lt. Comdr., U.S.N.R.  
 Larsen, H. T., Fort Dodge (Pensacola, Fla.) ..... Lt., U.S.N.R.  
 Shrader, J. C., Fort Dodge (Camp Forrest, Tenn.) ..... Major, A.U.S.  
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) ..... Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.) ..... Capt., A.U.S.

#### Winneshiak County

Fritchen, A. F., Decorah (Treasure Island, Cal.) ..... Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Howard, W. H., Decorah ..... Capt., A.U.S.  
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.  
 Van Besien, G. J., Decorah (APO New York, N. Y.) ..... 1st Lt., A.U.S.

#### Woodbury County

Bettler, P. L., Sioux City (APO 962, San Francisco, Cal.) ..... Major, A.U.S.  
 Blackstone, M. A., Sioux City (Camp Stoneman, Cal.) ..... Capt., A.U.S.  
 Boe, Henry, Sioux City (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 †Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) ..... Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) ..... Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa) ..... 1st Lt., A.U.S.  
 Down, H. I., Sioux City (Ft. Devens, Mass.) ..... Lt. Col., A.U.S.  
 Elson, V. J., Danbury (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Frank, L. J., Sioux City (Vallejo, Cal.) ..... Comdr., U.S.N.R.  
 Graham, J. W., Sioux City (Pensacola, Fla.) ..... Lt. Comdr., U.S.N.R.  
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
 Harris, D. M., Sioux City (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Sioux City, Iowa) ..... Capt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.) ..... Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.) ..... Major, A.U.S.  
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) ..... Capt., A.U.S.  
 Knott, P. D., Sioux City (Camp Crowder, Mo.) ..... Capt., A.U.S.  
 Knott, R. C., Sioux City (Fort Bragg, N. C.) ..... Major, A.U.S.  
 Krigten, W. M., Sioux City (Springfield, Mo.) ..... Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (Santa Fe, N. Mex.) ..... Major, A.U.S.  
 Martin, R. F., Sioux City (APO 652, New York, N. Y.) ..... Capt., A.U.S.  
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 McCuiston, H. M., Sioux City (APO 813, New York, N. Y.) ..... Capt., A.U.S.

Mugan, R. C., Sioux City (APO 210, New York, N. Y.) ..... Capt., A.U.S.  
 Osineup, P. W., Sioux City (APO 9101, New York, N. Y.) ..... Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.) ..... Capt., A.U.S.  
 Reeder, J. E., Jr., Sioux City (APO 9648, New York, N. Y.) ..... Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.) ..... Capt., A.U.S.  
 Schwartz, J. W., Sioux City (Camp Crowder, Mo.) ..... Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Ephrata, Wash.) ..... Capt., A.U.S.

#### Worth County

Westly, G. S., Manly (APO 4580, San Francisco, Cal.) ..... Major, A.U.S.

#### Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.) ..... Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Phoenix, Ariz.) ..... P.A. Surg., U.S.P.H.S.  
 Gorrell, R. L., Clarion (Brooklyn, N. Y.) ..... P.A. Surg., U.S.P.H.S.  
 Leinbach, S. P., Belmond (Farragut Air Base, Idaho) ..... Capt., A.U.S.  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.

(\*) Reported missing in action.  
 (†) Reported killed in action.  
 (‡) Reported prisoner of war.

## THE AMERICAN MEDICAL ASSOCIATION MEETING

(Continued from page 285)

lems during the past ten years. The selection of Dr. Lewis H. Bauer of New York to fill Dr. Lee's place on the Board of Trustees places thereon a man who has been most active as chairman of the Council on Medical Service and Public Relations.

So much for the business end of the meeting. The scientific exhibits as usual were an education in themselves. 'One could well afford to spend a day or more studying the various exhibits and visiting with the doctors who had prepared them. It is unfortunate that the rooms were not cooler. The unseasonable heat shortened the visits of many who would have liked to remain longer.

The technical exhibits at the Stevens Hotel were well displayed, and the choice of material was outstanding. Here again the physician could profitably spend much time reviewing what is new in medical armament.

The war meeting Wednesday night offered an excellent opportunity to hear high ranking officials of the Army and Navy tell of the progress of the war and what is being done medically. The war movies presented the same story of unequalled medical care.

All in all, it was an excellent meeting, one from which one could not help but return with a feeling of inspiration and renewed enthusiasm.

The full report of the House of Delegates meeting will appear in the August JOURNAL.

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## POSTWAR PLANNING\*

WALTER H. JUDD, M.D., Washington, D. C.†

Until recent years the primary purpose, perhaps I might even say the sole purpose of such meetings as this, was to improve our skill as physicians, to study and learn more about disease and how to diagnose and treat it. But times have changed, and there are other matters besides our own professional work to which we now must give serious consideration, both as doctors and as citizens.

That has happened in other walks of life, too; for example, in the business world. Fifty years or so ago, when our great industries were just beginning to develop, those men were sought as heads of companies who were experts on finance, who knew how to raise money to build a railway or a steel or oil company or a utility. The original industrialists were financial geniuses—the Harrimans, the Rockefellers, the Goulds, the Vanderbilts, the Astors.

Then, the great problem came to be production and we entered the period of the Henry Fords, the Edisons, the Firestones, the Ketterings, the day of the engineering geniuses who developed our tooling industries and mass production.

Then, when the production job was mastered, it was realized we were able to make and grow more than we could sell. The urgent job became distribution, developing markets for the enormous quantities we could manufacture. Companies began to seek as their executives men who were sales managers, experts in consumer psychology, who knew how to create desire and demand and get the product sold and distributed.

Then labor came to the front. If a company wanted to prosper and go along smoothly, it began to look for someone as its head who could handle labor, because what good were the capital assets and the factory and the machines and the market

if it could not get its men to work efficiently?

Now, in the last few years, we have moved to another stage where government reaches into the life and home and business and profession of every single person in America every hour of every day. Therefore, a man who is going to be a leader in business or professional life has to know something about government. Almost the primary qualification of the head of a great company today is that he be able to deal with Washington, both the Administration and the Congress, and with that peculiar species of genus homo called the politician.

Physicians are going through this same sort of transition. Whether we like it or not, there are laymen in this country who have ideas with regard to how the practice of medicine should be carried on. They have a well laid-out program. Furthermore, they have access to the sources of power in Washington. They are far more active than we in legislative halls, in administration circles, and in those agencies which are aggressively spreading propaganda throughout the country to develop the kind of public opinion they want.

Therefore, we doctors have no choice but to enlarge and expand our interests and activities. Originally most physicians were occupied largely with the treating of symptoms. They made up in ritual and magician stuff, long black coat, Latin prescriptions, for what they lacked in knowledge.

Then they went on to the next stage, where they said, "It is not enough just to treat ailments. We must first of all find out just what the disease really is and its etiology." The day of the pathologist and the diagnostician, the laboratory tests, the instruments of precision came in. For a few years we paid little attention to treatment. We concentrated so much on the disease that we almost forgot the patient—the era of therapeutic nihilism.

Then we went on to emphasis on preventive medicine. It was not enough to diagnose and cure those who were already sick. We had to develop ways to prevent man from becoming sick.

And now we face still other problems. We find

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†Representative from the Minnesota Seventh Congressional District.



it is not enough to be able to diagnose and treat and prevent disease, to protect community health by handling epidemics, and so forth. We find we must become economists. We have to understand and engage in political activities; otherwise our opportunity to do the professional things we have been trained to do will be taken from us. We must get an adequate amount and equitable distribution of medical care, as well as highest quality. We must get medical service where the need is greatest, not just to the highest bidder, or else we will find our services being rationed by government willy-nilly.

Times have changed, and it is a necessary and good thing that we have meetings of this sort, not only to sharpen our wits professionally but to learn how to solve our nonprofessional problems, which is essential if we are going to have a chance to do well our professional work.

Dr. Adson is going to speak about our nonprofessional duties as physicians. I want to speak primarily, in this first half hour, about some of our nonprofessional duties as citizens of this Republic.

Before I am a physician, I am a father and I am a taxpayer, and I have inherited and am a trustee for the precious legacy that is the world's best hope today—the sort of free government our forefathers fought for and established here.

The fact that we are first of all citizens must influence our thinking and activities as physicians; and on the other hand the sort of realistic thinking we develop as physicians must and should influence our activities as citizens. The mental habits and attitudes of physicians are desperately needed in governmental circles if the problems the nation as a whole faces are to be handled wisely.

No one will deny we are in one of the greatest crises of all time, one of the three or four periods of greatest flux and change and uncertainty in all history.

The Chinese term for "crisis" is "wei chi"; "wei" is the word for danger and "chi" is the word for opportunity. That is what a crisis is, a dangerous opportunity. It may lead to unspeakable disaster; or it may be the beginning of a great new day. It depends on how we handle it.

We have to begin, of course, with what we want. What kind of an America do we want this land to be? I think we, perhaps, could sum up the kind of world we would like to have here at home in two words; one is prosperity and the other is security. I do not mean by "prosperity" great riches, fabulous wealth. Perhaps I should call it "economic security"; that is, reasonable assurance that we and our children are going to be able to have good food and good clothing and good homes

and good education, and a little left over for travel and cultural activities and pleasure.

Then we want political security. We do not want to go to all the trouble of producing a generation of youth, feeding and training and developing them and then having them slaughter and be slaughtered every twenty-five years.

My decision to enter political life was made against my own personal desires. Only you can understand how difficult it is for a man who has spent twenty years as a physician to sacrifice the thing he knows how and loves to do. It also means jeopardizing his livelihood for his long-term future and for his children. Just about the time mine will be ready for college and needing financial help from me, I will be eliminated from public office and find myself nothing but a pill peddler. I cannot be anything but a second- or third-rater in my profession, because I will have been out too long. No sensible person would want this job, if he considered only his own likes; but I know a lot of men out in Guadalcanal or on the Anzio Beachhead or getting ready to invade the Continent of Europe, who don't like it, either. Yet they do it regardless of the personal cost.

One hot summer night about two years ago, one of my patients had a premature delivery at six and one-half months. The baby weighed only one pound and twelve ounces, didn't have nails or differentiated skin, didn't have a chance, and yet Dr. Platou (he is an eminent pediatrician in Minneapolis) and the resident and I and two nurses and an anesthetist worked for four hours, from eleven-thirty to three-thirty that night, trying in vain to save that little life. We knew we were licked, but still we worked on. That was our tradition. That was what we were expected to do by others and by ourselves. That was what the grooves in our minds directed.

Those hours as we struggled with that tiny infant, trying to keep it breathing, I couldn't help thinking about the many men, with fine scientific training and with great ability, who also were working most of the night, but to devise ways and means of killing, not this little premature infant, but the world's finest youth who have been inoculated and vaccinated and quarantined and fed vitamin supplements and educated—for what? Not to save life but to kill and be killed, millions of them.

There is no sense in such a world. What reason is there for the things you and I do, as physicians, if every twenty-five years we go out and destroy the product of our efforts?

Night before last I spoke before a group of men whose business it is to produce food, one of the great food companies of America. You hear on

the radio about their products, the high grade cereals, for example. For years they have specialized in producing better health and stronger bodies, and yet almost half the people of that company are now in the armament business, straining every nerve to produce more and deadlier things with which to destroy the bodies they have been building.

To put it in contrast like that can only make one ask, "What is the matter with man, anyway?"

That company had never made armaments, it did not want to make them, it did not know how. But when a need was presented to it, its officers said, "All right, we will find the way."

People will say this or that peace plan did not work, no one knows how to get peace, therefore there is nothing we can do about it. But that does not necessarily follow. We are finding the ways to produce even bombers by mass production, and everything else under the sun. We can, if we put our minds and wills to it, find ways to settle peaceably conflicts between nations. Our civilization is doomed, just as sure as I stand here, unless we recognize that, at this great crossroads of history, we must find some other way than war of resolving our disputes.

There will always be disputes. As long as there is a wrong side of the tracks, as long as there is a broken home, as long as there are birth injuries or diseases that affect the human mind, as long as glands get out of order, there will be men and women with warped personalities and bitter anti-social attitudes, who are going to try to change society by violence. We are not going to achieve peace by absence of aggression. We are going to get peace only when we sit down and work out with other peoples ways to resolve disputes before they degenerate to the place where the mass of people can see no other way out than by going to war, because it is perfectly clear that men *will* go to war if they do not have any other way. No matter how many neutrality acts they pass, no matter how many pledges they take, no matter what the odds against them, they *will* go to war—witness China, Norway, Greece, Poland—if they have no other way that looks as if it will preserve the values they have come to treasure.

How can we get prosperity and security? Well, it is perfectly clear that we cannot get either one of them by ourselves alone. We have tried that repeatedly. I wish that politicians could learn to think the way doctors have to think. We are trained at the autopsy table. We study the autopsy, not to condemn somebody who made a mistake, not to say *who* was to blame, but to try to find out if we can *what* was to blame, what went wrong with our thinking, how did we so

misinterpret, or even miss, some things we now see as plain as day.

What went wrong with our thinking in America, for example, that we would allow a nation with our superior wealth and resources and geographic and strategic advantages to drift into a situation where a little nation like Japan, with nothing but a bunch of volcanic islands, could shake us by the throat for a year?

The doctor may have been ever so conscientious and careful and painstaking in his examination which led him to think the trouble was, for example, in the patient's stomach. He may have called in expert consultants, most of whom agreed that the trouble was in the stomach. He may even have had a propaganda agency to try to convince all the relatives that the trouble was in the stomach. But if at the autopsy table it turns out to have been in the patient's liver, then it was in his liver, that is all there is to it; and it doesn't make any difference whether the doctor is a Republican or a Democrat—it still was in the liver.

Surely there are some things apparent to all today that were not clear twenty-five years ago. We differed about them then, seriously and conscientiously, but now the body lies open before us, and we can, if we will, learn so that we will not make at least the same mistakes again.

We remember that during the last war when the men of Europe were in the trenches instead of in their fields and factories, they could not produce for themselves and had to turn to us to produce for them. Over in Nebraska where I was born and brought up, we plowed up a lot of land that should never have been anything but grazing land and planted it with wheat, because the price was \$2.25 a bushel. A lot of that land has since blown into Iowa!

Then we built up our industries to produce for ourselves and millions in Europe. Then the war ended. The men in Europe came back to their own farms and factories. They soon could produce for themselves most of what they needed. They did not have to buy so much from us, and we were left with a great surplus productive capacity—a great overbuilt plant, agricultural and industrial.

We postponed the day of reckoning by such devices as foreign loans and installment buying, which was a form of internal loan. But in 1929 our overproduction caught up with us, and we entered a depression which lasted ten years, until we finally got out of it by the method of borrowing tax money from future generations to build huge armaments. But that is not a program which can be continued indefinitely!

We can appropriate money by act of Congress,



but we cannot pay it back by act of Congress. We can pay it back only by years and decades of toil and sacrifice. It is easy to increase the national debt by legislation; we cannot decrease it by legislation. That takes work, suffering.

Now we are compelled by the necessities of war to expand our production far beyond anything in our past. We have to produce for ourselves; we have to produce for our soldiers on dozens of battlefronts, consuming under the most expensive and wasteful circumstances possible; we have to produce for many of our allies; and we have to produce for the millions who are going to be liberated from Axis tyranny. Therefore, once more every possible acre is under cultivation, every factory is straining to produce its utmost.

But this war will end, too, some day. All wars have ended, and so will this. After a relatively short time, the men of Europe and the other countries will be able to produce for themselves most of what they need. They will not have to buy so much from us. America will be left with the most enormously overbuilt plant, agricultural and industrial, the world has ever known, able to produce far more than we ourselves can consume, or at least more than we can buy and pay for. What then? There are only two possibilities. We must either (1) drastically reduce our plant to what we at home can buy and pay for, which would mean putting millions of men and women out of work at the very time the soldiers are coming back and we need millions more, not fewer jobs. Such a course would plunge us into a depression that would make the last one look like a tea party. Or, (2) we must build up consuming power by every possible means so that it can take the full output of our fields and factories. We must find or create new markets for our surpluses.

Where can we find or create new markets? There are only two places: at home and abroad. There are few, if any, more important matters to which the leaders of agriculture, and industry, and labor can devote constant attention than to the making of plans now for gradual demobilization of our armed forces, gradual reconversion from war to peace economy, developing new industries, new uses for agricultural products, multiplying jobs.

The basic setup for winning the war has been largely completed, the conversion to production of war materials, the appropriation of money, the determination of strategy. The war is not in our hands any longer. The next hundred days are going to determine whether it is going to be relatively a pushover in Europe, or a tragedy. Hitler failed to gamble everything in 1940 against England and lost. He gambled everything in 1941

against Moscow and he lost. He gambled everything in 1942 against Stalingrad and lost; he gambled everything in 1943 on the summer offensive against Russia and he lost in ten or twelve days. This year he must gamble everything on smashing our invading forces into the sea or he is done for, and he knows it. He has millions of men who are veterans and fanatical. We are sending over a larger number and better equipped, but they are green and untried. Most of them have never even heard a gun fired in actual combat. It is going to be tough. But you and I cannot do anything about that now. It is in the hands of our military experts and our men, and they are able and well trained. I think they are going to succeed. We are going to win the war partly because our country is like a patient whose constitution is so gigantically strong that the doctor can do a lot of things wrong and the patient will still survive!

But what is to happen after the war is won cannot be worked out by the Chiefs of Staff. It must be planned and prepared for by all of us here at home, private industry, and consumers, and labor, and professional men, quite as much as by the President and the Congress.

There are many new developments already in sight: potentially enormous industries from the thousands of new uses for plastics and synthetics; new lightweight metals to manufacture new types of automobiles which will be as far ahead of those of 1942 as the latter were ahead of the Ford of 1912; the replacement of worn-out railroad rolling stock with new streamlined equipment; the whole aviation industry, including the helicopter, whose possibilities at present are beyond estimation; the repair of millions of homes and farm buildings, as well as construction along new lines of architecture of great numbers of new residential and business structures. All these give us just a glimpse of what is before us.

But that development will still not be enough to use all that American industry and agriculture can produce, and they must be kept at full production if there are to be enough jobs for all. We must, therefore, lay long-range plans to increase our markets abroad. Half of the people in the world live in Asia, and they are just beginning their industrial revolution; just beginning to learn to use machines to increase their production and raise their standard of living. They need and want the things Americans have to give them, especially technical assistance and engineering, industrial machinery, hundreds of thousands of miles of trunk railways and highways, automobiles, trucks and buses.

America has an enormous stake in helping pro-

duce in these countries an enlarging, expanding economy, with new industries, more jobs, higher wages, greater purchasing power, and therefore more sales.

Many of the things produced in some countries of South America are competitive with our own. But Asia's economy, almost in toto, complements rather than competes with ours. Its people produce a great many things which we need and with which they can pay for the things they want from us. To have the lion's share, as we can, in helping develop the gigantic markets of Asia, and particularly China, and then in helping satisfy those markets, is one of the greatest backlogs we can have during the postwar period, and one that will last at least fifty years.

It is frequently said that the American market must be preserved for the American farmer and the American worker, and the American manufacturer. As a matter of fact, the American market is not enough for the American farmer and the American worker and the American manufacturer. We must have far greater foreign markets than ever before, in addition to the domestic market, if we are to keep our great plant busy; and other countries must be helped to increase prosperity if they are to be able to buy our products. That is not sentimentality or philanthropy. That is just plain, practical, hard-headed concern for our survival as a free country with a free economy.

Some say we can get along by ourselves. Well, America can exist by herself, even as a farmer can exist by himself. He can grow enough grain, vegetables, chickens, hogs, sheep, etc., to feed and clothe himself and his family; but he cannot develop a high standard of living, he cannot secure many modern conveniences, he cannot develop a satisfying social and cultural life without trade and cordial relations with his neighbors. Wealth and prosperity come from trade and exchange of commodities on a mutually beneficial basis; and rich culture and civilization come from interchange of ideas and personalities.

America can exist in a shriveled-up way just by herself. But we would never be satisfied with mere existence. Our country cannot grow and be the America of expanding opportunities as in the past, unless she takes advantage of the unprecedented possibilities now opening before her, not just by our government giving things to the rest of the world, which would not do the job, but rather by American business assisting other peoples to get on their feet and get going under their own power.

There is no possibility of such trade and inter-

change between nations, however, and therefore no possibility of long-term economic prosperity here in America, unless there is political security throughout the world. One cannot enter into a contract with a firm in a foreign land unless there is reasonable certainty that goods can go and come, that media of exchange will be stable, and that war or revolution will not be breaking out. That is, we must have political security as well as economic; rather, we must have political security in order to have economic security. Always we are driven back to that *sine qua non*, the one prerequisite, political security, order in the world, peace. How can we get security? How can we preserve the peace after we have won it?

Well, how did we get it in the past?

Historically, there have been but three ways. The first was by individual armaments. Every man on these plains carried a gun on his hip. But, as more settlers moved in, it did not give him adequate security because two or three others could always gang up against him.

Therefore, he went to the second stage—the stage of alliances. The cattle thieves, the horse rustlers, the highwaymen were allied in gangs. Therefore, the law-abiding citizens had to form alliances also. They were not ideal. They led at times to perversions of justice, to vigilante groups, to lynch law; but on the whole, they gave a greater degree of security than just individual armaments. It was the balance-of-power system.

Then our forefathers, as the country became more thickly settled and society became more complex, were wise enough to proceed to the third stage—that of organized security. If a man wanted to be sure that his wife and children had a maximum of security with a minimum cost of his time and money, the best way to do it was to join with his neighbors in organizing the community to make sure there would be clean water for all, good sewage disposal, good schools, good highways, good public health, good courts, and good policing.

It was not because he was more interested in his neighbor's wife than his own that he recognized it was part of his business to see that the neighbor's wife was safe and secure. It was only because he could not be sure of his own wife's safety unless he helped build a community orderliness which would make every law-abiding person in the area reasonably secure. Only when that had been achieved could he give up carrying his gun.

America tried for twenty years to get along without any one of the three types of security. We would not go into alliances with the nations



whose interests and ideals were nearest our own. We would not join with other countries in an attempt to get organized security, after the first disillusioning experience. And then we gave up our guns! No wonder we are fighting for our lives.

We allowed ourselves to be deluded by the fact that our country, until recent decades, *was* able to get security by physical separation from the rest of the world. Nature gave us two wide oceans—but we ourselves destroyed them with our own inventions. It was we, not the Germans or Japanese, who invented the steamboat, the submarine, and the airplane. We ate up the cake of our physical isolation with our own inventions, and still thought we had it. We jammed ourselves into the same boat with the rest of the world, and assumed that the boat could sink but that by some magic we would remain afloat.

Sometimes I wish we had a planet all by ourselves. Wouldn't that be fine? And yet I know we wouldn't be satisfied, being Americans. We would lie awake at night until we could think up some way to get across from that planet to this one, and start doing business with it! And then we would wonder why we no longer had the security that came from separation.

No, to try to stand alone in this jungle of a world is to be overwhelmed. How then *can* we get security? Only by working with other peoples of like mind to achieve in full, frank cooperation agreement as to the rules and procedures by which life and intercourse on this planet are to be conducted. There must be rules and procedures that preserve and protect and serve the legitimate, vital interests of each nation. Otherwise, we cannot expect the agreements to be adhered to faithfully, either by other nations or by ourselves.

At this point I want to make three or four comments about the means we must devise to achieve the desired ends. I have been talking about the *WHY*. Now I want to examine sketchily the *HOW*.

The first thing to say is that America has to take the initiative, for two reasons: One is that no other nation *can* take the initiative, because no other nation commands as much trust and confidence and good will around the world. There is a reason for that. Whether rightly or wrongly, most of the world does not trust either Britain or Russia because of certain things in their past. We know what suspicions many Americans would have if either Mr. Stalin or Mr. Churchill were to take the initiative and come forward with plans for postwar organization. Would not many people

suspect there was a scheme somewhere or somehow to slip something over on us?

On the other hand, whether rightly or wrongly, most of the world still does trust America. That, too, is because of certain things in our past. The whole world knows that for one hundred twenty-five years we had the power to take over the whole western hemisphere, North and South America; but we did not do it, every nation in the hemisphere is wholly independent and free.

Hitler and Japan imagine the world will respect them because of the way they wield their power over their neighbors. The world respects America because of the way it has *not* wielded its power over its neighbors. The world knows we have never wantonly attacked another nation. The world respects us because we have never demanded punitive indemnities or reparations. After the Boxer rebellion the other nations grabbed their indemnities. What did America do? We returned our indemnity to China to establish a great university there and to select, up to this time, more than 4,600 of China's ablest boys and girls to bring them here on scholarships to study in our colleges and universities, to learn our ways and skills and go back and help China become like us. There never was an investment in all history that paid such dividends in saved American lives and saved billions of American dollars.

The world observed we took the Philippines. What did we do—the usual thing, make them the first colony in a great new empire? No, we made them a republic, educated the people, told them we would set them free on a given date and they know we will make good. That is why nations trust us. That is why we can take the lead as no other nation can.

The other reason why we must take the initiative is because the stakes for America's own future are so great. How many more wars do we think we can stand? We dare not sit back and allow things to go by default. It is not enough just to be willing to join an international organization if and when other nations form it. We must take the lead in forming it, or there will not be any, at least not one that will work.

The next thing I want to say is that we must do more fundamental thinking on the costs of peace. We see what war costs, but we have never been ready to pay or even to analyze carefully the price that peace will cost. The trouble is in our minds. There are no precedents for making sacrifices in order to establish world order as there are for making sacrifices to win wars.

We have had wars in the past. There are grooves in our brain for that. We will give up our

business, our profession, our families, our income, our ambitions, our lives, for war—any kind of sacrifice, any sort of readjustment. It has always been done; therefore we will do it again.

When it comes to trying to work out some sort of cooperation to win the peace, the same sort of cooperation between nations which we now have to win the war, we promptly balk at that because it would require changes in our former ways. We are not willing to make the slightest sacrifice for peace. We are like a man who comes in with tuberculosis. He wants to get well. We say, "You ought to go out to a sanatorium for six months."

"Oh, I couldn't do that. That would upset the schedule I have set up for the next year. That would cost too much money. That would be inconvenient."

"Well, we can give you some air injections regularly to collapse your lung."

"No, that would hurt too much, require too frequent visits to the doctor. I couldn't take some trips I am planning."

"Well, we can take out your ribs on one side."

"Oh, no, I couldn't do that. That would be permanently disfiguring and too dangerous."

He wants health but refuses to pay the price of health. Just so with the peace we want so passionately but for which we aren't willing to pay. We calculate all the risks and magnify all the dangers of cooperating with the rest of the world—and they are there—and forget to calculate or evaluate adequately the risks of not cooperating; and, believe me, they are there, too.

We spent many months of hot debate in the presidential campaign of 1920 on the risks of going into the League of Nations, and did not pay enough attention to the risks of staying out. The boys over in New Guinea and Italy today would say there were some risks in our trying to go it alone. It is a matter of evaluating risks just as a doctor does. If I operate and the patient dies, it is my fault, but if I don't operate and the appendix ruptures and the patient dies, it is also my fault. Both are risks. To decide not to intervene, or to postpone the decision, or to refuse to decide, is a decision that leads to the cemetery just as often as the decision to intervene. There are dangers either way.

We will pay any price for war but think peace ought to come down like a little dove and circle around and gently land on our shoulders for nothing, maybe even pay us a little for the parking privileges. Well, it won't.

One of the prices is to do some thinking about

this word sovereignty which has become a shibboleth to some. Many promptly object that to join in a cooperative effort to establish and maintain peace would be to surrender some of our sovereignty. Let us examine that for a moment. In the first place, it assumes that we have had absolute sovereignty hitherto. But did we have complete sovereignty when we did not have in our own hands control of the question as to whether or not we went to war? What more all-important life-and-death question is there than that? Yet, no matter how passionately America wanted peace, the decision as to peace or war was not in our hands. Japan made that decision for us.

Second, do we have absolute sovereignty now in waging the war? No. Scores of units of our fleet are fighting under the command of British admirals. Tens of thousands of British, and French and Greeks, and Dutch, and Chinese, and Australians, and New Zealanders are fighting under the command of American generals. Americans are fighting under the command of a Chinese general. We would not hesitate to place some of our forces under Stalin's command if they were needed and he wanted them on the Russian front. We recognize that there are certain risks in delegating in war or peace control of certain functions to the United Nations, but we do it, nevertheless, because we recognize that the risks in not working together in such a fashion are enormously greater. We know we could not win the war without associating with those "terrible Bolsheviks," what makes us think we can win the peace without them?

Joint policing of the world to suppress immediately any future attempt at military aggression by any nation contemplates no startling innovation. It merely seeks to continue for preventing wars the same sort of cooperation we have worked out for winning this war, to keep the winning team together. It is clear that no one or two of the great nations can win it by themselves. It seems equally clear that no one or two can police it successfully and indefinitely.

Each nation is required to give up only one thing; namely, the right to start an aggressive war. Our country never did that and never expects to. Therefore, America would not be giving up anything.

The police force would not be for the purpose of imposing the will of one nation or group on another. Quite the contrary, its function would be to protect each nation from any other nation's attempt to impose its will; that is, the police force, just as in a local community, exists, not to de-



stroy individual rights and security, but to protect and preserve them.

The police force does not determine which party is right and which is wrong. It merely *stops the fight*, pushes the contestants apart, and says that no matter what the dispute, war is not the way to settle it, and takes them before the proper tribunal to try to work out a fair and peaceful settlement.

Every contract one signs restricts one's freedom of action. So does every treaty. Why, then, does a man or nation ever use its sovereignty to sign agreements which restrict its complete independence? Because it believes the probable advantages to be gained, measured in terms of prosperity and security, far outweigh the possible disadvantages and dangers?

Peace itself is not a direct end-result; peace is a by-product of right relations. That is what Jesus meant when he said: "Seek ye first the kingdom of God and his *righteousness*—his right relations—and these other things will be added unto you."

Right relations—that is the direct objective. And there is no way you can get right relations except on the basis of establishing justice. That is one of the costs of peace. The Big Four cannot sit around and say, "We have the biggest armies. We can tell the small nations when to come and when to go." Sovereign equality means not equality of strength or power or size, but being bound by the same law—not one sort of law for the big powerful states, and another for the small, weak, poor states.

It is true that we must start with the Big Four, but unless there is provision in the setup for all nations to have their day in court and assurance of right relations, that is, of getting reasonably equitable settlement of their legitimate grievances, it will be unjust and it will go down. Any one of the Big Four can break off at any time and capitalize on the discontent of the fifty or so small nations, and we are no longer in undisputed control.

After we think through the requirement that there can be no peace without justice—not revenge, not charity, not soupy sentimentality, but justice—then we must recognize that we cannot get or maintain justice without the right use of force. In our proper revulsion against the misuse and the abuse of force by the dictators, the unspeakable despotisms and cruel tyrannies they have established, many have rebelled against all force as inherently evil. Others, because they see that force is necessary in some situations have concluded that force is, therefore, the final arbiter. I think his-

tory proves both are wrong. The only way to prevent arbitrary, vicious use of force by the few is by organizing for proper use of force by the many, publicly controlled for publicly determined purposes. We know that courts are necessary for getting justice; and that the sheriff is necessary if the court's verdicts are to be of any value.

We are day-dreaming if we imagine we can get peace without sufficient justice so that no nation will need to go to war, and without adequate force so that it will know in advance it cannot succeed even if it does go to war.

Again, we have to do some fundamental thinking about the word freedom. I think the President, however well-intentioned, has done a great disservice in using the word freedom in two quite different senses in the Four Freedoms. Two of them—freedom of religion, freedom of speech—are freedoms in the sense that the word has always meant. But freedom from want and freedom from fear aren't freedoms at all. Freedom from want is economic security. Freedom from fear is political security. They are good things, important, desirable, but they are not freedoms.

A bird up there in the air is free, but he is not "free" from fear. A hunter can shoot him and a hawk may kill him. He is not free from want. He has to hunt for his food in the bark or on the ground. Now if he wants to be "free" from want and from fear more than he wants to be free, he can come down and fly into a cage and the cat or the hawk cannot get him, and the master will come along and feed him three times a day. He has "freedom" from want and fear, but he does not have freedom. He has lost his freedom in order to get security. A mess of pottage is very important, especially when one is very hungry—but not if it costs one's birthright.

Jesus told a story about the prodigal son. He had freedom and he went out and abused it. He came to the day when he was in want. He said, "I will go back to my father and say, 'Make me one of your hired servants. I want freedom from want and freedom from fear. I will eat out in the kitchen. I will just be one of the servants.'"

He got freedom from want and freedom from fear, but at the price of ceasing to be a free man. It is like those Germans who said in effect, "Hitler, you decide what we are to do and what we are to think. You decide the hours we work and the pay we get. It is too hard to be a human being and think these things out ourselves."

I know freedom is dangerous. Of course it is dangerous, and difficult. But I prefer real freedom with opportunity to move along and for men to rise or to fall in proportion to their merits or

lack of merits, to any sort of externally imposed security such as the slaves had. Most of them had freedom from want and freedom from fear, but surely one could not maintain that they had freedom.

It seems to me the heart of our problem is to get freedom and order. There is no freedom without order. Freedom at the expense of order is not freedom; it is anarchy. On the other hand, order at the expense of freedom is not order; it is tyranny.

Men want to be free not so that they can escape order but so that they can establish a just order. We don't want the order that Japan would impose or Germany would impose. We will fight it tooth and nail. But when we get through and are victorious, what will we have? We will have only a breathing spell in which we can establish a just order, if we will. There can be no real freedom without order. Let's get that clear in our minds.

I think America today is at the crossroads. In these next few months we will be deciding, probably without realizing it, the basic attitudes and directions which are likely to determine the fate of our nation and that of the world for decades. There are four main ways open before us, and there are eloquent, sincere advocates for each of the ways. Perhaps we ought to do a little diagnosing by exclusion.

I have been pleading for one of those ways. We need to examine whether the other three ways are also tenable, or whether they must be excluded. The first way is to try to escape the world, to go back to the so-called isolationism. It once was possible but that day has gone. The progress of our own inventions, the ability of the airplane to ignore all land and sea boundaries and, above all, the demonstrated fact that the rest of the world is not going to ignore us, no matter how much we want to ignore it, have made it impossible to escape the world.

Second, some will say, "Well, if we can't escape the world, then we will have to rule the world. If the world won't leave us alone, then we must get control of the key islands, the critical air bases, and main routes of trade. Let us fortify them until impregnable, and then build such a giant air force and navy and army that it will be certain no nation can ever attack us."

That sounds big, but let us examine coolly, first, whether it is possible, and second, what the attempt would cost. It is difficult for us Americans to realize that we are rapidly becoming a have-not nation in many respects because of the rate at which we are using up our resources. High-grade iron ore, the experts tell us, will be gone

in three years. Our oil reserves can maintain present rates of production for only twelve to twenty years. Zinc is almost gone now. Lead and copper reserves will last for only ten years at the present rate of production. Bauxite for aluminum is being used up like mad. Tin, chrome, manganese, tungsten, we never had. We simply do not have adequate resources to do the job alone, and if we try to police the world, other nations certainly will gang up against us, just as we now unite against those who would try to rule us, and they would shut us off from free access to their supplies of those materials we do not have.

Again, we will have a population of not over 140 million, a little tired and disillusioned, and asking only to be let alone. But there are 200 million Russians—and they do not seem to be very tired! They are on the move, and are just entering what is likely to be one of the greatest epics of industrial expansion in all the world's history. There are 450 million Chinese, just awakening from the sleep of the centuries, and their leaders are aflame with the love of human freedom as our forefathers were in 1776. Ferment is beginning to work among 375 millions in India, and there are 140 millions in Latin America, restless and uneasy. Does anybody really think we with our resources and small man power can run the world or police it single-handed?

To try to do it would mean that two or three millions of your sons who are now in uniform would never get back into civilian clothes. They are becoming soldiers temporarily now in order to have the assurance of being privileged to be civilians the rest of their lives. Do you want them to win the war only to be permanently in uniform? If there were no other way, perhaps yes. But surely not if there is some other way to get peace.

It would cost fifteen to twenty-five billion dollars for armaments in every annual budget. My friends, we cannot possibly contemplate such a permanent expenditure. Congress appropriated in six months last year 106 billion dollars for war. Of course, there isn't that much real money in the whole world, but we appropriated it, nevertheless. The President recently reported that a total of 344 billion dollars had been appropriated for war purposes. Even with all the new-fangled theories of government financing, it still is inescapably clear that some day we must balance the budget. There are only two ways to do it. One is to reduce federal expenditures; the other is to increase federal income, that is, taxes. If you were to read my mail, you wouldn't think many people were interested in increasing their taxes. The only way we can reduce taxes is to reduce expenditures and we cannot get them down to manageable propor-



tions with fifteen to twenty-five billions spent each year for armaments. We would have less and less money for the comforts of life, for food, automobiles, radios, the things we Americans are accustomed to and crave. That would mean increasing dissatisfaction and discontent throughout all sections of our populace. Labor could not get what it deserves, and it would become rebellious and believe somebody was gouging it, and capital couldn't get any decent return on its investments. The farmer would be dead sure that everybody had ignored and forgotten him. There would be restlessness and factionalism and bitterness, and each bloc or group blaming the others. Gradually our standard of living would go down and we would either break up into factions and go the way of France, national disintegration, or some man with a hypnotic personality would come along and promise us relief if we would but follow him, and millions would go with him into a totalitarian system and the loss of our basic freedoms.

For America to try to run the world would be suicidal.

Some suggest that we can buy the world. America would supply the world adequate food, clothing, medicines, and so forth, out of our own resources; and then all peoples would love us and that would solve our problems—the philosophy of giving people things, instead of helping them get on their feet so that they can develop their own Freedom-from-want. That philosophy of giving people things always has been and always will be self-defeating in the long run, because it does not actually help people as it appears to do. It destroys independence, and will, and self respect, and initiative, and resourcefulness. Besides, our nation simply does not have the resources and money to carry out any such ill-advised program.

If we cannot escape the world and cannot run the world and cannot buy the world, what can we do? There is one other way. We can join the world, we can learn to walk with all like-minded peoples. We can learn to travel in convoy in peace as we do in war.

The big ship could say, "I don't like to go with this convoy. It cramps my style, it restricts my speed. I can't determine my own direction. I think there's a shorter way. I am going by myself. I want absolute sovereignty, independence, complete freedom of action." It can do that; but if it does, it has no protection from the torpedoes. It had better learn to travel in convoy if it wants to be safe. In the long run, it gains a great deal more than it loses.

We can do more than join the world. America can lead it, if she will. The world waits breathlessly for clear vigorous leadership from her. I lived

ten years outside America. Americans are the only people in the world who don't begin to appreciate their own country's strength. All Mr. Churchill has left today is a couple of deuces and he plays them as though they were a full house. We have most of the big cards, and we tremble as if we were an adolescent boy in knee pants.

The peoples of the world are on the march. We cannot hold them down. We cannot drive them. We cannot buy them. What, then, can we do? We can join them. Yes, we can lead them—if it be on the basis of the principles of liberty and justice and equality of rights on which our own nation was founded.

Is there any other course left except a genuinely cooperative effort to achieve with our allies an organized security? I am not greatly disturbed at the moment about the actual details of such organization. It is not possible to settle the exact form of it now, because the exact circumstances with which we will be dealing are not yet apparent. I am perfectly confident, however, that we and the other peoples of the world can find some other way than war of solving our disputes when we see that we must, because the world cannot stand these periodic returns to the jungle. We have plenty of able, resourceful, experienced leaders who can work out the actual machinery, when we see that it is not a question of Utopianism but of stern inescapable necessity.

The sum and substance of it all is this: If we are sufficiently intelligent and resourceful and wise in our own American interests to be able to work out with our Allies ways by which we can jointly win the war, then surely we are sufficiently intelligent and resourceful and wise in our own American interests to be able to work out with those same allies ways by which we can jointly establish order and jointly prevent war.

The sufferings through which our country and the world is going can be either death-pangs or birth-pangs. They can be the end of all that free men have struggled for through centuries and mark the beginning of a return to the Dark Ages, because mankind and civilization cannot tolerate more of these wars. Or, they can be the sufferings that attend birth, the ushering in of a new era in history, richer in material and physical comforts, yes, and in culture and in goodness of living, than any the world has ever glimpsed or dreamed. Which they are to be depends, more than anything else in the world, I believe, on the way we in America in the next few months decide to go.

Thank God our country is one of the few remaining places in the world where the common people, just like ourselves here this morning, still can determine their own destiny—if they will.

## COMMENTS ON RHEUMATIC HEART DISEASE\*

LESLIE W. SWANSON, M.D., Mason City

Rheumatic heart disease is the foremost cardiac hazard of childhood and young adulthood. It ranks high as a cause of death in this age group and the disability it may produce is assuming greater importance as a public health problem. Selective service rejections for cardiovascular defects caused by rheumatic fever have recently served to focus attention upon the importance of the disease.

The cardiac involvement occurs as a part of the rheumatic state stemming from the various manifestations of streptococcic infections according to the present consensus. The advent of the sulfonamide drugs has brought new hope that such infections may be curbed before appreciable cardiac damage appears. These drugs have not as yet proved feasible for use in blanket prophylaxis or treatment. However, in selected instances in which recurrences of rheumatic fever are particularly to be dreaded, they offer some effectiveness. Penicillin extends the horizon for experimental work in this regard.

The acute infection is essentially a pancarditis. The degree of valvular damage is looked upon as the determining factor in most instances, although the myocardial damage is significant and perhaps the most difficult to evaluate. The effects of valvular damage are greatly influenced by the degree of myocardial damage suffered from the rheumatic infection. The severely damaged myocardium may be unable to cope with even mild valvular deficiency, but a relatively normal myocardium may overcome severe valvular stenoses.

The value of allowing an adequate convalescent period to insure myocardial and endocardial healing and the cessation of infection is now widely appreciated, and nearly every victim of the disease is given this help. Subsequent limitation of activity to fit the capacity of the damaged heart must be individualized in order to best prolong the patient's life span. The discreet cardiac patient may live many years past his expectancy, although relatively few live beyond the age of fifty years.

When the endpoint of cardiac reserve versus required activity on the part of the individual is reached, cardiac decompensation results. The initial manifestation of cardiac failure may often be compensated for by a simple reduction in activity and the promotion of longer rest periods. Correction of any associated abnormal condition such

as obesity may decrease the cardiac load so that compensation can be maintained. The administration of digitalis increases the ability of the failing heart to maintain an adequate output. Reduction of the salt intake, control of the fluid intake, and the diuretic drugs ranging from the xanthines to the mercurials provide further therapeutic armamentarium for bolstering the failing myocardium. The most feared complication to be watched for in the management of rheumatic heart disease is the superimposition of an active bacterial endocarditis, most often due to *Streptococcus viridans*. This constitutes a catastrophe, since it has been 99 per cent fatal in the past. The sulfonamide drugs combined with fever therapy offer a somewhat better outlook in various hands but the results have not been consistent. Here again penicillin is under investigation without as yet too much to brighten the outlook. From a prophylactic viewpoint it seems reasonable to advise the patient with rheumatic heart disease to try sulfonamide and, when available, penicillin protection rather freely during the management of streptococcic infections present or anticipated from dental or surgical procedures. Thus the prevention of bacterial endocarditis may eventually be the best treatment.

The onset of a disturbance of cardiac rhythm, especially auricular fibrillation, may precipitate failure, particularly in mitral stenosis. Prolonged attacks of ectopic tachycardia may lead to untimely death. Management of the oftentimes premonitory paroxysmal ectopic arrhythmias offers us another opportunity to help the rheumatic cardiac patient. Of these arrhythmias I have encountered in a few months auricular fibrillation, auricular tachycardia, auricular flutter, and supraventricular tachycardia. Patients suffering from such paroxysms frequently live in dread of attacks which make them apprehensive of death. Repeated, frequent paroxysms doubtlessly decrease the myocardial reserve and lead to earlier decompensation.

The use of quinidine to prevent these paroxysms is in my opinion appreciated too little. Many of the patients have such brief attacks that it is difficult to obtain accurate observation. This, with the tendency of the patient to give grotesque descriptions of the symptoms, frequently makes the diagnosis difficult; but careful history-taking, attempts to observe the attacks, and an acute awareness of the occurrence of paroxysmal arrhythmias usually make the diagnosis possible. Quinidine therapy is simple for the most part. It infrequently causes untoward reactions, and it may tremendously improve the functional status of the patient. One of my patients was removed from a continuous state of borderline decompensation to

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a reasonable capacity for normal living, and the apprehensiveness induced by her continual fear of attacks was alleviated. Another patient had been considered extremely neurotic nearly all of her adult life, simply because nothing but the after-effects of anxiety produced by the attack were ever observed. Observation of the origination of an attack, made possible by hospitalizing the patient, led to the correct diagnosis. Subsequently, quinidine made a normal individual of a supposedly "confirmed neurotic."

Quinidine makes possible the avoidance of such attacks postoperatively and thus reduces the surgical risk so that these patients may have elective surgical procedures previously denied them for fear of inducing paroxysmal arrhythmias leading to acute decompensation. It has been my practice to use 3 grain tablets two to four times daily as needed to prevent ordinary paroxysms. The patient being operated on undergoes enough increased cardiac strain to need heavier than usual dosage in order to prevent attacks. In one instance a patient without quinidine had had as many as ten paroxysms of supraventricular tachycardia daily. Three grains of quinidine were administered each four hours for eight doses followed by 6 grains immediately preoperatively. This proved to be adequate to prevent paroxysms during the anesthesia and post-anesthesia recovery period. Oral quinidine therapy can usually be resumed judiciously within four to eight hours postoperatively, soon enough to maintain the quinidine depression of the irritable ectopic foci.

#### DERMATOFIBROMYXOSARCOMA†

EARL D. McCLEAN, M.D., and

PHILIP F. H. PUGH, M.D.,\* Des Moines

The incidence of fibrosarcoma of the skin is rather rare, although it has been recognized for many years. Since 1924 when Darier<sup>1</sup> described progressive and recurring dermatofibromas, several similar cases have been studied and reported, most of which come under the above or similar classifications.

The Mayo Clinic reports a whole series of fibrosarcomas of the soft tissues of the extremities in a twenty-one year period from January 10, 1910, to December 31, 1930, 232 cases being reported.<sup>2</sup> None of these, however, is in the skin in an abdominal site. They arrive at the conclusions that (1) males are affected twice as often as females; (2) the average age is forty-three years, but ranges from one to eighty years; (3) there

is a history of trauma in 32.9 per cent of the cases and in 11 per cent there appears to be a relationship between the injury and the formation of the tumor; (4) heredity has little bearing; and (5) fibrosarcomas appear encapsulated in 50 per cent of the cases and are usually single or lobulated and sharply defined in a layer of healthy connective tissue.

Hargrove<sup>3</sup> explains that fibrosarcomas begin in their earliest recognizable form as small encapsulated tumors situated in the subcutaneous tissue. In unusual cases their development may be traced to the deeper layer of skin. Frequently they all adhere to muscle sheaths or intermuscular septa and occasionally arise in the loose vascular areolar tissue between fascial planes along the course of important vessels and tissues. Their growth is usually expansile, the central portion increasing with the peripheral. Involvement of the skin may be either spontaneous or as a secondary result of operative interference or the use of cancer pastes.

A note on etiology is well worth while. We refer to the hypothesis of Ewing<sup>4</sup> that myxosarcomas arise from fat lobules; also to articles by Ewing,<sup>5</sup> Stewart and Copeland,<sup>6</sup> and Geschickter<sup>7</sup> who present theories of the origin of fibrosarcomas from nerve tissue. Geschickter also believes they arise from Schwann cells or certain neuromas, thus placing these tumors in a class with gliomas. At the present time the most interesting suggestion is that made by Binkley<sup>8</sup> who shows that most dermatofibrosarcomas occur along the right or left mammary ridge familiar to all of us as the bilaterally embryologic "milk line," and also are most commonly situated anteriorly on either side of the umbilicus in the upper and lower abdominal areas. Thus is proposed a theory of development from embryonal rest tissue.

#### CASE REPORT

On November 17, 1943, a white female child, eleven months of age, was admitted to the Pediatric Service of Broadlawns General Hospital with painless, progressive, abdominal swelling. In late September, 1943, the parents noticed a tiny, slightly raised nodule in the left hypochondrium. The parents thought this lesion was not remarkable, and it attracted no further attention until November 3, 1943, when, during one of the infant's infrequent bathing periods, the mother noticed an increase in the size of the mass to approximately grape size with a definite bluish cast. Because the mother thought the lump might be a hernia she treated it with bands tight about the abdomen. Progressively, the swelling enlarged without pain until plum size, exhibiting the same bluish discoloration. The

†From the Department of Pediatric Surgery, Broadlawns General Hospital, Des Moines, Iowa.

\*Now in Rochester, Minnesota.

nodular enlargement was entirely without discomfort at any time to the patient. Careful systemic review showed no symptomatology contributing to the entrance complaint.

The child's past history revealed a normal delivery of a nonsyphilitic parentage. The birth weight was eight pounds; the weight on admission was eighteen pounds. The infant was breast fed, receiving normal supplements for her age. Except for mild rubella at two months of age, she had always been well.

Physical examination revealed a well developed, bright, fair-haired, well nourished child who did not appear acutely ill. Careful physical pursuance revealed no abnormalities except a bluish, domed, symmetrical 2.5 by 5 centimeters tumor with a remarkable dilatation of the veins leaving the tumor area in the left hypochondrium, fading approximately 15 centimeters in a longitudinal direction extending into the left anterior thoracic area. The mass did not transmit light, and was soft and freely movable. It was seemingly well encapsulated and definitely attached to the overlying skin but not bound down to the underlying fascia plane.

All laboratory work was within normal limits, reports showing 3,800,000 red blood cells; 12.8 grams hemoglobin; 10,900 white blood cells with 60 per cent polys, a few young forms, 27 per cent lymphocytes; and normal urinalysis.

The patient was seen in the tumor clinic where it was found that the tumor was noncompressible and apparently noncystic. Because of the rich venous drainage from the tumor area, opinion was given that the lesion was a richly vascular sarcoma. Extirpation was advised.

Under general anesthesia, the skin was excised via an elliptical incision 1 centimeter above the base of the tumor dissecting the tumor throughout

its under surface and upward on either side approaching the overlying area of adherent skin. All of the adherent skin was completely excised allowing a safe margin in the healthy portion of the skin, there being sufficient redundant skin to cover the operative wound. The skin edges were coapted with skin clips and a pressure dressing applied.

The patient made an uneventful recovery and left the hospital on the ninth postoperative day. A follow-up examination made three months later showed no evidence of recurrence or complications.

*Pathologic Report:* The specimen consisted of a subcutaneous tumor from the anterior surface of the abdomen. It was covered by an elliptical segment of skin which measured 4.2 by 1.5 centimeters. The tumor seemed fairly well encapsulated but the capsule was partially deficient near the skin margins. It was rather soft and was composed of edematous, glistening white, homogeneous tissue. It measured 5.2 by 4.5 by 3.5 centimeters.

*Microscopy:* The neoplasm had a myxomatous structure; it was composed of stellate and spindle-shaped cells which were rather widely separated from each other because of the presence of much fluid in the tissue. The nuclei of the cells tended to be small but varied moderately in size and showed moderate hyperchromatism. Occasionally, mitotic figures were found. One section included skin. The tumor had not invaded the corium appreciably; it lay on the undersurface of the corium. One must assume, therefore, that it had arisen in the subcutaneous tissue. Such tumors are not radiosensitive and postoperative x-ray therapy was not advised.

*Opinion:* Subcutaneous myxofibrosarcoma of the abdomen, grade I malignancy.

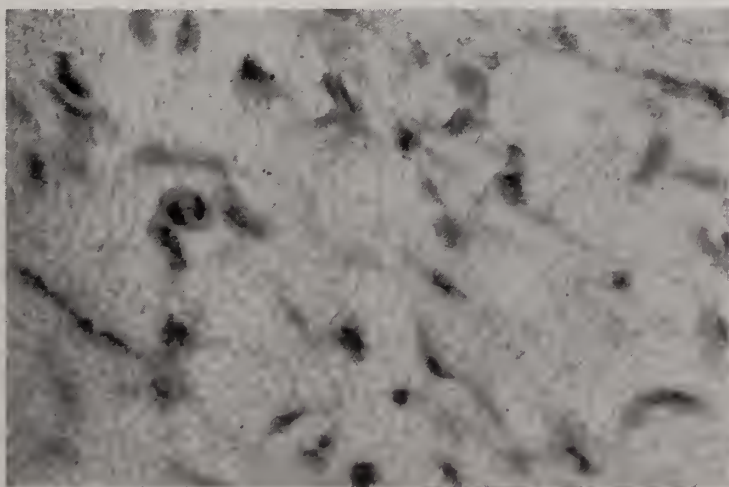


Fig. 1. Note the wide separation of the cells and the mitotic figure.



These tumors are divided according to a malignancy index arrived at by definite criteria. They are divisible into four groups in relation to the number of mitotic figures and tumor giant cells. In group 1 are those tumors showing a minimum number of mitotic figures, in group 4 those with a maximum number of mitotic figures.<sup>2</sup> This, however, is not too satisfactory.

The tumors are then grouped into three classes<sup>9</sup> according to the relative proportion of fibers and cells so that the following types are distinguished: (1) fibrous tumors, (2) fibrocellular tumors, and (3) cellular afibrous tumors. The first group represents fibrogenic sarcoma; the second group fibrogenic sarcoma, fibromyxosarcoma, and myxosarcoma; and the third group cellular spindle cell and anaplastic cellular sarcoma.

The malignancy of fibrosarcomas is inversely proportional to the number of fibers present and directly proportional to the number of mitotic figures present. This is true of fibromyxosarcomas. The duration of life<sup>9</sup> from onset of symptoms until death is also inversely proportional to the grade of tumor. In twelve grade 1 tumors the average duration of life was 100.6 months; in nineteen grade 2 tumors it was 51.6 months; in fifteen grade 3 tumors it was 43.2 months; and in five grade 4 tumors it was 29.3 months.

The treatment of this type of tumor is (1) surgery, and (2) radiation. Radiation is mentioned only to be condemned, or at least given small consideration. Dr. Mandeville,<sup>10</sup> Professor of Roentgenology, University Medical School of Virginia, says: "The roentgen rays serve as an aid in outlining the extent of the growths in the soft tissue, in ruling out the attachments and involvements to adjacent bones, and in determining the presence or absence of pulmonary metastasis. The roentgen ray may also serve as an aid to surgical methods in pre- or postoperative treatment in an effort to retard or destroy the growth." We find little support of radiation treatment in the literature.

#### SUMMARY

The purpose of this paper is to present a rather typical case of a rare tumor, a dermatofibromyxosarcoma. Special reference is made to early surgery as the only proper management. Roentgen therapy is condemned.

#### REFERENCES

1. Darier, J.: Progressive and recurring dermatofibromas. *Ann. de dermat. et syph.*, v:545-562 (October) 1924.
2. Meyerding, H. W., Broders, A. C., and Hargrave, R. L.: Clinical aspects of fibrosarcoma of soft tissues of extremities. *Surg., Gynec. & Obst.*, lxii:1010-1019 (June) 1936.
3. Hargrave, Robert: Fibrosarcoma of soft tissues of extremities. *Texas Jour. Med.*, xii:815-819 (April) 1937.
4. Ewing, James: Fascial sarcoma and intermuscular myxoliposarcoma. *Arch. Surg.*, xxxi:507-520 (October) 1935.
5. Ewing, J.: *Neoplastic Diseases*, third edition. W. B. Saunders Company, Philadelphia, 1928.

6. Stewart, F. W., and Copeland, M. M.: Neurogenic sarcoma. *Am. Jour. Cancer*, xv:1235-1320 (July) 1931.
7. Geschickter, C. F.: Tumors of peripheral nerves. *Am. Jour. Cancer*, xxv:377-410 (October) 1935.
8. Binkley, George W.: Dermatofibrosarcoma protuberans. *Arch. Dermat. & Syph.*, xl:578-594 (October) 1939.
9. Broders, A. C., Hargrave, R. L., and Meyerding, H. W.: Pathological features of soft tissue fibrosarcoma. *Surg., Gynec. & Obst.*, lxi:267-280 (September) 1939.
10. Mandeville, F. B.: Roentgen ray aspects of sarcoma of soft tissues. *Jour. South Carolina Med. Assn.*, xxxix:59-62 (March) 1943.

## PNEUMORADIOGRAPHY OF THE KNEE JOINT

FRANCIS BLONEK, M.D., Rock Island, Illinois,  
and JOSEPH WOLF, M.D., Davenport\*

In plain x-ray films of joints only the bones are distinctly differentiated. Films exposed with the soft tissue technic show merely the outer contours of the joint, the borders between skin, subcutaneous tissue, and capsule, and the outlines of muscles. Of the tissues within the joints only the fat pads are visible. All other structures such as ligaments, cartilages, and disks appear as a homogenous soft part shadow without differentiation. Occasionally, if such a structure is calcified, it can be seen on a plain film (Fig. 1). Since these calcifications are rare, however, attempts have been made since the early days of the Roentgen era to demonstrate intra-articular structures by introduction of contrast media. Three methods have been used: (1) The negative contrast with substances giving a less dense shadow than body tissue, such as air, oxygen, nitrogen, carbon dioxide, and helium; (2) the positive contrast with radiopaque substances giving a more dense shadow than body tissue, such as solutions of metal salts, various compounds of iodized oil or watery solutions of iodides; and (3) the combination of both usually referred to as the "double contrast method." We in Iowa may be proud of the fact that one of our colleagues was the founder of pneumoradiography of joints, Dr. Karl R. Werndorff† of Council Bluffs. As a young orthopedic surgeon in Vienna in 1904, Dr. Werndorff, after numerous experiments on animals to prove the safety from embolism, inflated human knee joints with oxygen and then made x-ray pictures of them. His pioneer work was the forerunner of extensive studies and a vast literature on the subject. While the method has been used in many joints, especially those of the hip, knee, ankle, shoulder, elbow, and wrist, our study will deal only with the knee since the indications for pneumoradiography of that joint are by far more common and of greater practical value than of any other joint of the human body.

\*Dr. Blonek is now located in Baltimore, Maryland, and Dr. Wolf in Glendale, California.

†Dr. Werndorff died May 28, 1944.



Fig. 1. Plain roentgenogram of knee, A-P view. Patient 70 years of age. Extensive calcification of both menisci.

Among these indications the traumatic changes rate first in frequency and importance; next come infections, tuberculous and nonspecific, including arthritis; and finally pathologic changes due to aseptic embolism and nutritional deficiencies of the joint cartilage, including osteochondritis dissecans and loose bodies (joint mice).

There are practically no contraindications. Pneumoradiography of joints has been practiced in newborn children to study congenital dislocation of the hip, and through all ages up to the eighties. The method is harmless if a nonirritating contrast medium such as hippuran or diodrast is used. A few authors warn against lipolysin which has caused local irritation lasting several years. Schüller<sup>1</sup> warns against the method in tuberculous arthritis.

First in anyone's mind, of course, is the danger of gas embolism. There is one report in the literature<sup>2</sup> of a near fatal pulmonary embolism, but the author confessed his own responsibility because he failed to make sure the needle used for the gas inflation was outside of a blood vessel. In two other cases there was discomfort apparently due

to a slight gas embolism, but the patients recovered quickly. If one uses the precautions mentioned below, the method is not dangerous. Schum<sup>3</sup> in 233 cases did not have one complication.

Before we discuss our roentgenologic findings in injured and diseased knee joints a short revue of the normal anatomy may be in order, inasmuch as recent studies by Brantigan and Voshell<sup>4</sup> have somewhat changed our conception as described in the textbooks of anatomy. They showed that the knee consists mainly of three subdivisions: Two condyloid joints, each formed by a condyle of the femur, the corresponding meniscus, and the condyle of the tibia, and a third joint between the patella and femur. The cruciate ligaments are covered with synovial membrane and, therefore, lie extra-articularly between the condyloid joints. These anatomic facts are of more than theoretic interest. Too often one sees a semilunar cartilage being removed from a small transverse incision. Besides the danger of leaving the posterior horn



Fig. 2. Pneumoroentgenogram, A-P view. Patient, 10 years of age, supine. Old suppurative arthritis, possibly tuberculosis. Medial meniscus normal, lateral blurred. Lateral portion of capsule thickened. At "A" communication between popliteal bursa and lateral menisco-tibial space. At "B" accumulation of contrast fluid in suprapatellar recess.



inside and thereby inviting later traumatic arthritis, the insufficient exposure prevents inspection of the cruciate ligaments after excision of the cartilage. Even when clinical signs of a lesion of the cruciate ligaments are absent, such as anteroposterior instability and a positive drawer symptom, one should make the incision large enough to permit inspection of the cruciate ligaments. It will pay dividends in the possible discovery and consequent repair of tears, especially of the anterior ligament, which otherwise remain hidden and

strong fibrous tissue on the extensor side to the anterior and on the flexor side to the posterior cruciate ligament, and is separated from the fibular collateral ligament by the popliteus tendon. Contrarily, the medial meniscus has no fibrous attachment to either cruciate ligament. The fibrous tissue of the capsule blends intimately with the menisci about the periphery, while the lateral meniscus is separated from the capsule at the entrance of the popliteus tendon into the joint. It is no surprise, then, that lesions of the lateral semilunar cartilage are often combined with tears in the cruciate ligaments, while injuries to the medial meniscus are often associated with lesions of the joint capsule.

The synovial membrane of the knee is the largest and the architecture of the articular space the most complicated of all joints. That accounts for the difficulty in reading pneumoradiographic films of the knee; only after an extended experience with pneumoroentgenograms of normal joints should one attempt to diagnose pathologic conditions.

The bursae of the semimembranosus and medial gastrocnemius muscles may communicate with the knee joint which is of practical importance in cysts of their tendon sheaths (Baker's cyst), recently the subject of studies by Meyerding and Van Demark.<sup>5</sup> The infrapatellar fat pad, plicae alares and patellaris, both cruciate ligaments, the anterior and posterior horns of both menisci, and the intercondyloid eminence of the tibia, although within the fibrous articular capsule, lay outside the synovial membrane and actually outside the joint cavity. Thus the latter may be divided in the following compartments: (1) The suprapatellar recess; (2) the right and (3) the left femoro-menisco-tibial chamber, each having a posterior pouch behind each condyle of the femur; (4) the posterior, lateral recess; and finally (5) the anterior compartment which is narrowed to a slit by the extra-articularly located infrapatellar fat pad.

In a pneumoroentgenogram of the knee joint, therefore, the following structures besides the bones will be visible: (1) The hyaline cartilages of the femur, tibia, and posterior aspect of the patella, appearing as a slightly grayish layer, coating the articular planes of the bones and outlined against the joint cavity by a fine, dense line formed by the thin film of the opaque fluid; (2) both menisci, their attachment to the fibrous capsule and on lateral views to the transverse ligament; (3) of both cruciate ligaments their attachment to the intercondyloid eminences of the tibia (Oblique views may show some of their length.); (4) the synovial membrane and joint cavity (The former is visualized by a thin line of varying density produced by the coating opaque fluid. In the pouches often



Fig. 3. Same patient, supine, knee in internal semirotation. Lateral meniscus well demonstrated, shows broad attachment to thickened fibrous capsule. At "C" communication with bursa of semimembranosus muscle, not visible on previous picture.

cause pain and dysfunction after the meniscectomy.

The joint capsule is attached to femur, tibia, patella, and both menisci. Its capacity varies according to the position of the knee from a maximum in slight flexion of about fifteen degrees, decreasing in extension, to a minimum in extreme flexion. Therefore, the position of choice for inflation with gas is slight flexion.

Of the menisci the lateral, in addition to its firm attachment to femur and tibia, is anchored by

larger amounts of the contrast material are deposited which has the undesirable effect of obscuring details.): (5) the infrapatellar fat pad which in plain films is seen as an area of decreased density and in pneumoroentgenograms appears inversely as increased density contrasting with the gas filled transparent anterior compartment; (6) the plicae alares, if pathologically condensed and thus demarcated against the gas filled joint space; and (7) the pouches of the joint cavity, filled with gas and distinctly demonstrated as transparent dark areas.

In reviewing the pathologic findings we see the most frequent changes in the menisci, since injuries to these structures are of prime importance among cases of internal derangement of the knee joint. Pneumoroentgenograms show site, type, and often the degree of the damage such as displacement, transverse or longitudinal tears, complete, incomplete or mesial detachment (bucket handle type). Figure 5 shows absence of the medial semilunar cartilage after operative removal. Partial or complete ruptures of the cruciate ligaments are visualized by gas between the torn ligament and the corresponding intercondyloid eminence of the tibia. Erosions and defects of the cartilaginous covering of the joint planes are always visible, for instance in Charcot joints or osteochondritis dissecans. The latter usually affects the medial condyle of the femur close to the intercondyloid notch. In addition to the hole in the cartilage a sequestrum may be found consisting of the punched out cartilage plus the subchondral layer of bone. While also visible in plain roentgen films, particularly in older cases in which the freed cartilage is calcified, a loose particle of cartilage alone appears only in pneumoroentgenograms. This diagnostic procedure is still more important when the freed cartilage has slipped from its bed into the joint cavity as a joint mouse requiring operative excision.

In chondromatosis, which most frequently affects the knee joint, not one loose body but usually multiple pieces of hyaline cartilage are found, at first arising from the synovial membrane and protruding in the joint space and finally becoming separated and forming joint mice. Of different sizes, ranging between the size of a pin head and a hazelnut, they are found in all compartments of the knee joint and in rare instances also in the adjacent bursae.<sup>6</sup> Although in later stages they become calcified and then are visible in plain roentgenograms, only pneumoradiography reveals their presence in the initial, undifferentiated stage.

Another source of loose bodies are detached marginal osteophytes in osteo-arthritis which, like other joint mice, will be seen in a pneumoroent-



Fig. 4. Pneumoroentgenogram of right knee, A-P view; patient lying on left side, fibular aspect up. Operative removal of both menisci eight months previously. Multiple synechiae in suprapatellar recess. Posterior horn of lateral miniscus still present. Arrow points to loose body, not visible on plain film.

genogram only if the chip consists of cartilage without calcification.

Chronic fibrous synovitis of various origin produces thickening of the synovial membrane, unevenness of its surface, formation of enlarged villi, and synechiae or stringlike and bandlike adhesions within the compartments, especially in the suprapatellar pouch which may shrink considerably. All these features are readily visible in pneumoroentgenograms (Figs. 4, 5 and 6).

The infrapatellar fat pad is frequently injured, and an acute lipohemarthrosis may follow the trauma.<sup>7</sup> This may lead to fibrosis and sclerosis of the fat pad and appear in a lateral pneumoroentgenogram (Fig. 6).

In cases of laceration of the capsule the inflated gas escapes through the tear from the joint cavity and appears in the periarticular tissue.

In tumors of the soft parts such as myxoma, xanthoma, synovioma and malignant tumors, pneumoradiography permits differentiation as to intra-articular or extra-articular location.



## TECHNIC

As previously mentioned, contrast radiography of joints can employ the positive method using opaque media, the negative method using gas, or the double contrast method using both. We used the latter with some modifications.

The patient lies on the x-ray table in supine position. The region of the knee joint from mid thigh to the middle lower leg is washed with green soap and water, dried with sterile towel, washed with ether, and finally painted or sprayed with an antiseptic such as merthiolate or zephiran chloride. If tincture of iodine is used, it must be thoroughly washed off with alcohol because it gives

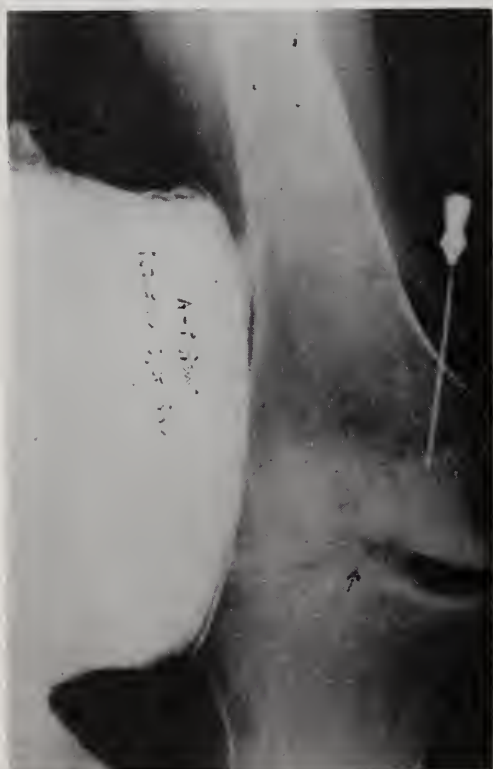


Fig. 5. Same knee, also A-P view, but with patient lying on right side, tibial aspect up. Medial meniscus completely absent. Loose body visible. Comparison of Figures 4 and 5 shows effect of change of position on visibility of menisci.

a shadow. The knee joint is draped and the surgeon prepares as for an operation with sterile cap, mask, gown, and gloves. With a gauge 26 short needle a small skin wheal is raised just laterally to and above the outer margin of the patella. Then an assistant raises the lower leg, bringing the knee in slight flexion. The patient is asked to relax so that the patella can passively be moved. The surgeon places his left hand around the patella and with the right introduces a gauge 18 needle about 2 inches long, mounted on an empty syringe, in a

medial and upward direction for about 4 centimeters toward the upper retropatellar recess. Next the plunger of the syringe is withdrawn until joint fluid appears. With several sideward movements of the needle the surgeon makes sure that the tip is in the free joint space and not in a blood vessel or soft structure. The empty syringe is now exchanged for a syringe with the opaque medium (we use a 35 per cent solution of hippuran), 3 to 5 cubic centimeters of which is injected. After withdrawal of the needle the assistant flexes and extends the knee joint about 20 times so that the opaque medium covers all surfaces with a thin film. Now a 16 or 18 gauge pneumothorax needle with closed point and the opening on the side is thrust in the joint through the same skin wheal and in the same direction as used for the first injection. The needle and rubber hose connecting it with the oxygen tank are sterile. To prevent intrusion of dirt from the tank a sterile filter loaded with a piece of sterile cotton or eight layers of fine mesh gauze is inserted next to the pressure gauge of the tank. Again a few sideward movements prove that the tip of the needle is in the free joint space to avoid embolism by inflating the gas in a blood vessel or emphysema by injecting it in soft tissue. The use of a pneumothorax needle with the side opening minimizes that danger. About 150 to 200 cubic centimeters of oxygen is slowly injected at a pressure of 10 to 12 pounds. The patient will complain of a feeling of fullness which is irrelevant.

After the inflation is completed, the rubber hose connecting the needle with the oxygen tank is closed by clamping it with a hemostat and then slipped off the outlet of the pressure gauge of the oxygen tank. While the pneumothorax needle is still in place in the joint, four exposures are made according to a photographic technic for which we combined a principle routinely used in ventriculography with a suggestion recently made by Peirce and Eaglesham<sup>7</sup> for the diagnosis of lipohemarthrosis of the knee. They called attention to the fact that in cases of knee injuries with serosanguineous effusion plus extravasation of fat into the synovial space one can see a fluid level due to a less dense supernatant layer of fat above the serosanguineous effusion if a roentgenogram of the knee is made with the patient in supine position and with horizontal projection of the x-ray beam. In ventriculography the position of the patient's head is changed for each successive exposure while the gas each time accumulates in the uppermost ventricle or its portion following the law of gravity, thereby outlining its contour from various angles.



Fig. 6. Same knee, lateral view, patient supine. Multiple synchiae in suprapatellar recess. Thickening of infrapatellar fat pad with fibrosis and tongue-like extension posteriorly. Posterior compartment shrunk.

The following four pictures are taken: (1) The conventional anteroposterior view with the patient supine, the tube above, and the x-ray beam vertical; (2) a lateromedial view with the patient supine and the tube aimed horizontally; (3) an anteroposterior view with the patient in lateral position, the tibial aspect of the knee up, the tube aimed horizontally, and (4) the same with the fibular side up, the patient lying on the contralateral side. The knee is always in slight flexion with the central ray through the level of the menisci. In some cases additional oblique pictures are taken with the patient in supine position and the knee in lateral or medial semirotation, the tube above. Exposure factors: Without Potter-Bucky diaphragm; size of film 8:10 or 10:12; focus-film distance 40 inches; with parspeed screens for the anteroposterior views 56 kilovolts peak, 10 milliampere-seconds; for the lateral views 54 kilovolt peaks and 10 milliampere-seconds; for non-screen technic on regular film: anteroposterior view 54 kilovolt peaks, lateral view 52 kilovolt peaks, each 150 miliampere-seconds. After the last picture is taken the gas is released from the joint by removing the hemostat from the rubber hose, and the needle is withdrawn. A sterile dressing is placed on the puncture wound and an elastic band-

age applied with moderate pressure. The patient can usually get up and walk out of the room without aid and can return to work the same or the next day.

While this routine technic is applicable in the majority of cases, some instances require modifications: If we are suspicious of a lesion of the external semilunar cartilage, the injection and inflation should be made from the inside; otherwise the pneumothorax needle would fall in the shadow of the lateral meniscus. In a joint filled with a hematoma or an effusion, the fluid should be tapped before starting the injection and inflation. If it is desired to concentrate the opaque medium in the region of the interarticular space, it is advisable to compress the upper recess with a pressure bandage. Finally, the above figures regarding the amount of contrast fluid and gas to be injected and the photographic data are those used in normal, average, adult knees, and must be adjusted in children or overly fat or thin adults.

While some authors report that they inject the



Fig. 7. Right knee, A-P view, with patient lying on right side, tibial aspect up. Suspected lesion of cruciate ligaments in fresh injury, motorcycle accident. Contrast fluid concentrated in center of joint space by compression bandage. Normal findings.



contrast medium and inflate the joint under sterile conditions in the operating room, then transfer the patient to the x-ray laboratory, we prefer to do the injection and inflation right on the x-ray table. According to Kling,<sup>8</sup> dyes injected in the knee joint appear in the urine after nine to twenty minutes and much sooner in the surrounding tissue. It is obvious that the pictures should be taken as fast as possible after the injection of the opaque fluid and to do it on the x-ray table saves considerable time.

**Therapeutic Gas Inflation:** While in our series we inflated the knee joints only for subsequent radiography and diagnosis, two of our patients, one with a fresh injury of the meniscus and the other a chronic arthritis, spontaneously stated a few days following the inflation that their pains had disappeared, their walking had improved, and they felt much better. This was no surprise. Several authors have used with good success air or gas inflation of joints for the treatment of various joint conditions, especially arthritis and hemarthrosis after fresh injuries.

We were particularly impressed with the following case: A farmer who had recurrent hydrops first of the left then also the right knee joint with clocklike regularity every twenty days was treated by one of us (J. W.) with tapping, pressure bandages, plaster cast and gold injections, without results. He was checked for focal infections, had several teeth removed, and had a series of fever treatments. He was referred to a competent allergist, and after fasting went on a diet excluding the supposedly allergic foodstuffs. Everything failed and a synovectomy was recommended. The man went to a local osteopath who does a land-slide business with "ozone" inflations of joints and after the third inflation never had a recurrence of his hydrarthrosis. The rationale of this treatment is dark but experience shows that gas inflation of joints gives good results in many instances.

SUMMARY

An improved method of pneumoradiography of the knee joint is described. After injection of an opaque fluid and oxygen inflation three antero-posterior pictures are taken with the patient in the routine position on the back, then on the right and left sides respectively, and the x-ray beam in horizontal direction. Since each time the gas collects at the highest level, different parts of the joint are outlined in each position. Additional lateral and, if necessary, oblique pictures will show further details.

Pneumoradiography is a valuable diagnostic procedure. It should be used routinely in cases of internal derangement of the knee joint and

other joint lesions in which plain films fail to show pathology. The method is harmless if some precautions are observed.

REFERENCES

1. Schüller, J.: Der Wert der Röntgenkontrastdarstellung des Kniegelenkes. *Röntgenpraxis* (Hft. 22) iv:947-955 (November) 1932.  
2. Kleinberg, S.: Pulmonary embolism following oxygen injection of knee. *Jour. Am. Med. Assn.*, lxxxix:172-173 (July 16) 1927.  
3. Schum, H.: Die Pneumoradiographie des Kniegelenks und ihre praktischen Ergebnisse. *Deutsche med. Wchnschr.*, lix:1659-1662 (November 3) 1933.  
4. Brantigan, O. C., and Voshell, A. F.: Mechanics of ligaments and menisci of knee joint. *Jour. Bone & Joint Surg.*, xxiii: 44-66 (January) 1941.  
5. Meyerding, H. W., and Van Demark, R. E.: Posterior hernia of knee (Baker's cyst, popliteal cyst, semimembranosus bursitis, medial gastrocnemius bursitis and popliteal bursitis). *Jour. Am. Med. Assn.*, cxvii:858-861 (July 24) 1943.  
6. Wolf, J.: Ueber paraartikuläre Schleimbeutelchondrome. *Ztschr. f. Orthop. Chir.*, lli:629-633 (March 14) 1930.  
7. Peirce, C. B., and Eaglesham, D. C.: Traumatic lipohemarthrosis of knee. *Radiology*, xxxix:655-662 (December) 1942.  
8. Kling, D. H.: The Synovial Membrane and the Synovial Fluid with special reference to Arthritis and Injuries of the Joints. Medical Press, Los Angeles, 1938.  
9. Bernstein, M. A., and Arens, R. A.: Diagnostic inflation of knee joint. *Radiology*, vii:500-506 (December) 1926.  
10. Burman, M. S., Tunick, I. S., and Pomeranz, M.: Epiphysitis of proximal or pseudometatarsal epiphyses of foot; report of case. *Am. Jour. Roentgenol.*, xxviii:787-795 (December) 1932.  
11. Levinthal, D. H.: Surgery of derangements of knee joint. *S. Clin. North America*, xxiii:181-203 (February) 1943.  
12. Severin, E.: Arthrograms of hip joints of children. *Surg., Gynec. & Obst.*, lxxii:601-604 (March) 1941.  
13. Simon, H. T., Hamilton, A. S., and Farrington, C. L.: Pneumoradiography of knee; newer technic demonstrating its value in diagnosis of semilunar cartilage injury. *Radiology*, xxvii:533-540 (November) 1936.  
14. Wernsdorff, K. R.: Employment of oxygen in bone and joint disease. *Jour. Iowa Med. Soc.*, xix:240-243 (May) 1929.

PREVALENCE OF DISEASE

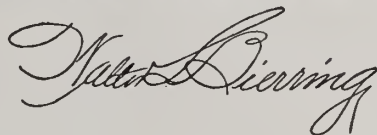
Disease	June '44	May '44	June '43	Most Cases Reported From
Diphtheria .....	9	11	9	Woodbury
Scarlet Fever ....	243	684	77	For the State
Typhoid Fever .....	4	0	2	Polk, Fayette, Cerro Gordo
Smallpox .....	0	5	0	None
Measles .....	410	911	424	Linn, Story, Black Hawk, Des Moines, Polk
Whooping Cough ...	38	27	183	Johnson, Woodbury, Cedar
Brucellosis .....	36	8	39	Dubuque, Linn, Black Hawk
Chickenpox .....	92	233	148	Des Moines, Dubuque, Black Hawk
German Measles....	8	28	161	Des Moines
Influenza .....	0	3	1	None
Malaria* .....	116	2	1	Clinton, Page
Meningitis .....	2	18	2	Mitchell, Poweshiek
Mumps .....	270	363	159	Johnson, Dubuque, Black Hawk, Hancock
Pneumonia .....	18	27	18	Polk, Clinton, Linn, Marion
Poliomyelitis .....	0	0	0	None
Tuberculosis .....	90	156	73	For the State
Gonorrhea .....	179	163	163	For the State
Syphilis .....	154	179	252	For the State

\*All infections incurred outside the United States.

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# STATE DEPARTMENT OF HEALTH



## CONVALESCENT SERUM REPORTS

Appraisal of results following the use of convalescent serum is dependent upon case reports completed through interest of attending physicians. The following paragraphs are based on reports received by the Serum-Plasma Center during the first half of 1944.

### A. Convalescent Serum for Measles

According to 112 reports made available by physicians, convalescent serum was used to prevent measles in 58 and to modify the disease in 54 instances. Nearly 70 per cent of those treated had been exposed in the home, about 15 per cent in schools, and others elsewhere. Of those receiving preventive treatment, 87 per cent were under ten years of age. Results were stated as "good" in 87 per cent of those treated, and as "fair" in an additional 3 per cent.

#### 1. Serum Dosage and Time of Administration

A. F. Harrington, M.D., of Cedar Rapids has submitted a series of case reports and also a letter which contains practical suggestions as to the amount of serum for modification or prevention of measles. His experience suggests that 5 cubic centimeters of serum be given to children under five years of age and that an extra 1 cubic centimeter be added for each year over five. "If given before five days of the incubation period have elapsed, measles will be prevented. If given on the fifth or sixth day following exposure, measles will be modified to the greatest degree, the symptoms and findings about like those of a light case of German measles. If given on the seventh, eighth or successive days, measles will be modified less with each successive day of delay. If given after the prodromal symptoms have started, the standard dosage is useless, but doubling or tripling the dosage may still produce some degree of modification."

#### 2. Modification of Measles Preferable

Results as recorded in 101 case reports received through the courtesy of 49 physicians show that measles was prevented in 63 per cent and attenuated in 37 per cent of those treated.

Prevention of measles following direct exposure is indicated during the early months of infancy, in those with lowered resistance, and for children in a hospital or institution. With relatively few exceptions, modification of measles is the method of choice. The chief advantage of this is that a mild attack usually confers active and enduring immunity.

About a fourth of the reports state that serum was administered on the fourth day. By waiting until the fifth or sixth day following initial exposure to measles in its early febrile stage, modification and immunity would result in a much higher percentage of cases.

#### 3. Case Excerpts

a. K. T., female, age one, Lee County, received 5 cubic centimeters of serum on the third day following exposure. There was no untoward reaction and "she didn't develop measles."

b. S. D. B., male, age six, Wapello County, was given 5 cubic centimeters of serum six or seven days after exposure in the home. The physician's report states, "I feel that the serum modified the severity of the patient's symptoms. Patient developed rash."

c. Mrs. P., age twenty-six, Dallas County, was administered convalescent serum (30 cc.) eight or nine days after exposure to measles. The result, to quote from the physician's report, "seemed to have been very satisfactory. It is possible and rather probable that the mother would have lost her baby had she had a high, prolonged fever."

### B. Convalescent Scarlet Fever Serum

#### 1. Prevention

During January-June, 1944, reports were received pertaining to 126 persons to whom serum was administered as a preventive measure following exposure. In 56 instances, exposure occurred in the home; 28 reports mentioned exposure to neighbors and 21 in school. Results as noted in 80 case reports show that 75 (94 per cent) escaped illness and five (6 per cent) had the disease in a mild form.



#### a. Serum Reserved for Direct Contacts in Home

In view of the limited supply of serum and in order that a more adequate amount may be reserved for therapeutic use, it is urged that prophylactic administration be confined, in so far as possible, to susceptible persons who give a history of direct exposure to scarlet fever in the home.

#### 2. Treatment

Reports are at hand regarding 33 individuals who received serum for treatment of scarlet fever. Infection was severe in 19 and moderately severe in 8 cases. Results were reported "good" in 91 per cent of those treated.

#### 3. Case Summaries

a. Miss V. H., age 18, Shelby County, was severely ill with scarlet fever. On April 1, 1944, she was given 80 cubic centimeters of convalescent serum intravenously. The case report states that there was a "marked decrease in temperature and toxemia."

b. In February, 1944, a 3-year-old girl in Osceola County was given 20 cubic centimeters of serum on the second day of moderately severe illness. "Within 12 hours temperature subsided from 104.3 (R) to 99.3 (R) degrees. Patient was sitting up in bed, interested in play. Rash and angina were slower, latter lasting three days."

#### C. Convalescent Whooping Cough Serum

Although but few case reports have been returned thus far, they show that of those who were given serum as a prophylactic measure following exposure or for treatment of whooping cough, most of the children were under one year of age. Among 15 who received serum after the onset of illness, results were reported as "good" in all instances. No untoward reactions were noted.

#### 1. Individual Records

a. I. H., a baby girl 3 days old, was exposed to whooping cough in the home; on the third day thereafter, the child was given 20 cubic centimeters of convalescent serum. The result was reported as "favorable."

b. A boy, age 6, resident of Franklin County, received 20 cubic centimeters of serum seven days after onset of symptoms suspicious of whooping cough. The result was "relief of symptoms in 48 hours. No recurrence."

c. M. E. K., a girl 10 weeks of age, Buena Vista County, was given 30 cubic centimeters of serum sixteen to eighteen days after onset of symptoms. The results were "marked reduction in severity of cough and in number of paroxysms—had less vomiting."

#### MORE LIGHT ON THE DOG TICK'S LIFE

The wood tick or common dog tick (*Dermacentor variabilis*) is regarded as the chief vector for the transmission of Rocky Mountain spotted fever and of tick-borne tularemia in Iowa and the Midwest.

Stages in the life cycle of the tick comprise the egg, the larva, the nymph, and the adult (male or female). The larval and nymphal forms occur as ectoparasites on small mammals, the latter serving as hosts for the immature ticks, unwillingly supplying them with blood and making possible growth and development to maturity. Adult ticks depend chiefly on large animals, of which the dog is the principal host; man's part in harboring the wood tick is usually accidental.

Although entomologists have devoted much time to study of the adult tick, knowledge of the seasonal distribution and host relationships of the tick larva and tick nymph is limited. In 1941, from April to December, and during the first three months of 1942, two students of entomology at Iowa State College made a careful field study of the dog tick, with special reference to the larval and nymphal stages. The Iowa State Department of Health, with funds supplied through the United States Public Health Service, cooperated in this project with the Division of Zoology and Entomology of Iowa State College. Most of the work was done on the Indian reservation in Tama County, the findings of which were recently published.<sup>1</sup>

Dogs on the reservation were examined twice a month to determine the seasonal occurrence of adult ticks. Wild mice were live-trapped and combed for the presence of young ticks (larvae and nymphs). Other animals were also examined when opportunity afforded. During the period of study, 2,656 white-footed mice were examined; also 1,132 dogs and smaller numbers of harvest mice, meadow mice, cottontail rabbits, fox squirrels, house cats, woodchucks, and opossums.

The Northern white-footed mouse was found to be the most important host for dog tick larvae and nymphs. Larvae were most numerous during April, averaging thirty-two per mouse in that month, with much smaller numbers from month to month through November. Tick nymphs were less abundant than larvae, were most frequent in June, and were found on mice from April through November. "In general, larvae show a preference for the head (of the host animal), especially the ears, whereas nymphs tend to congregate about the neck, shoulders and forepart of the body."

#### REFERENCE

1. Eddy, Gaines W., and Joyce, C. R.: The seasonal history and hosts of American dog tick, *Dermacentor variabilis*, in Iowa. Jour. Science, xviii:313-324 (April) 1944.

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POSTWAR PHYSICIAN SHORTAGE

THREATENS

What would appear to be a shortsighted policy on the part of government and military officials now prevails in respect to safeguarding the post-war supply of the nation's physicians. The Selective Service System in April abolished all further occupational deferments of premedical and medical students not enrolled in medical schools by July 1, 1944. Previously, in February, the Army curtailed its Army Specialized Training Program so that, as medical schools were affected, the number of medical students entering the 1945 class from this source was reduced from 55 per cent to 28 per cent. Furthermore, Congress on June 21 passed the Army appropriation bill containing the provision that no part of the appropriation could be used to defray the expenses of persons in medicine, dentistry, or veterinary unless such expenses were being defrayed prior to June 7, 1944.

The House of Delegates of the American Medical Association on June 12 passed the following resolution:

WHEREAS, The present policy of the Army and the Selective Service System in preventing the enrolment of a sufficient number of qualified medical students will inevitably result in an over-all shortage of qualified physicians with imminent danger to the health and well being of our citizens; therefore be it

RESOLVED, That it is imperative that immediate action be taken by the President or the Congress of the United States to correct the current drastic regulations which result in a restriction of the number of students qualified to enter the courses of medical instruction in approved medical schools.

Also disturbed by the seriousness of the potential threat to the nation's health was Congressman Miller of Nebraska who appealed directly to President Roosevelt for a modification of Selective

Service Director Hershey's ruling. Mr. Miller pointed out that there are only about six thousand premedical students in school and that certainly these would be of much more value to the country as trained medical men than they could possibly be serving in the infantry or some other branch of the military. He further noted that some four thousand physicians die each year in the United States and that the large number already absorbed into the Army has created such a shortage that should a serious epidemic occur lives might be unnecessarily lost.

In his reply to Congressman Miller, the President stated that he was keenly conscious of the need of maintaining the health of the nation and of making sure that we have an adequate supply of doctors. He said, however, that in this war the need of the armed forces for young, vigorous men must also be given thorough consideration. The Inter-Agency Committee on Deferments, the President said, had given careful consideration to the care of premedical students and had recommended to the Director of Selective Service that there be no deferment for premedical students who are not in medical school by July 1 of this year. The Committee in coming to this decision had taken into account the fact that none of these premedical students could be of service in the practice of medicine before 1948 and that men physically disqualified for military service, women, and ex-servicemen would be available to become premedical students. For these reasons, the President said he was unwilling to overrule the recommendation of the Inter-Agency Committee on Deferments or to instruct the Director of Selective Service to rescind the ruling he made when he adopted the Committee's recommendation.

What happens now would appear to be up to Congress since Congressman Miller has introduced H. R. 5128 which reads:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 5 of the Selective Training and Service Act of 1940, as amended, is amended by inserting at the end thereof a new subsection reading as follows:

"(n) There shall be deferred from training and service under this Act in the land and naval forces of the United States, as necessary to the maintenance of the national health, safety, and interest, in each calendar year not less than six thousand medical students and not less than four thousand dental students. As used in this subsection the term 'medical or dental student' means (1) a person who is enrolled in, and who is pursuing a course of instruction prescribed for the degree of doctor of medicine at an accredited



medical college; and a person who is enrolled in, and who is pursuing a course of instruction prescribed for the degree of doctor of dentistry at an accredited dental college; or (2) a person who is pursuing a regular course of instruction at an accredited college or university (satisfactory completion of which will make such a person eligible for enrolment in an accredited medical or dental college) with the bona fide intention of entering an accredited medical or dental college and pursuing and completing the course of instruction prescribed for the degree of doctor of medicine or for the degree of doctor of dentistry.'"

It is difficult indeed to understand how the responsible officials referred to above could be so blind to the future health needs of the nation as actually to adopt the shortsighted policies now affecting premedical school students. No such policy is being followed in other countries. Only the simplest kind of reasoning is necessary to make it clear that the scientists of a nation are an absolute necessity for its protection and development. Even with normal crops of doctors being graduated from medical schools each year, the country is bound to have a shortage of civilian physicians for a number of postwar years. Contributory to this shortage will be the large number retained by the greatly increased peacetime forces, casualties, those remaining for duty in occupied countries, and many who will be required for service in military and veterans hospitals. Probably not more than a half or at most two-thirds of the doctors now in military service will be returned to civilian practice at the conclusion of hostilities.

The solution of the government and military authorities to this impending situation is to recruit medical students from among ex-servicemen, women, and those physically disqualified for military service. There are several reasons why this is an unsound policy. In the first place it is doubtful if a sufficient number of qualified students could be recruited from these groups to fill the classes in the country's medical schools. Furthermore, there would almost of necessity have to be a letdown in the present high standards of medical education if future medical students had to be selected from the groups mentioned by the President. The study of medicine today is a long, hard grind which demands sound health and a better than average mentality. The nation cannot afford to rely for its future supply of physicians upon individuals physically unfit or upon those not especially adapted by reason of their desire to become doctors and by their mental ability to meet high educational standards.

The *Journal of the American Medical Association* for July 8 states that the present situation will

result in an annual and cumulative deficit of 2,000 physicians a year in face of new and increased demands for medical service. Every state medical society, medical school and medical scientific society should express itself in no uncertain terms on these developments.

"Protests," says the *Journal of the American Medical Association*, "against the blind disregard for medical care in the future should be addressed to the Senate (Senator Robert R. Reynolds, Chairman) and House (Representative Andrew J. May, Chairman) Committees on Military Affairs, the Senate Committee on Education and Labor (Senator Elbert D. Thomas, Chairman) and the House Committee on Education (Representative Graham a Barden, Chairman)."

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#### PRODUCTION OF VACCINES WITH ULTRAVIOLET IRRADIATION

This decade which has already witnessed the development of two of the greatest medical discoveries of all time—sulfonamides and penicillin—may be on the threshold of adding a third which also may be of great importance to the scientific world. Five Chicago scientists working in the Samuel Deutsch Serum Center of Michael Reese Hospital and in the Division of Laboratories, Illinois Department of Public Health, report on a new method for completely killing or inactivating bacteria and viruses in less than one second by exposing them to ultraviolet rays from a newly developed lamp. The authors claim that the method completely kills or inactivates suspensions of bacteria and viruses in a fraction of a second by exposing continuously flowing thin films with a depth of less than 1 millimeter to a newly developed lamp which is a powerful source of ultraviolet. Further, the investigators emphasize that bacteria and viruses are rapidly inactivated by this technic with a minimum loss of antigenicity, while the usual methods of inactivation such as heat and various chemicals unduly destroy the antigenic properties. Experimentation with this type of vaccine production has been tried before but the technic employed has been such that it was impossible to avoid either inadequate irradiation, which would not completely sterilize or inactivate, or over-irradiation, which destroyed the immunogenic properties of the vaccine. The technic employed by the Chicago men avoids these difficulties. Already rabies vaccine, St. Louis encephalitis vaccine, and typhoid, pneumococcus (type 1), and *Salmonella enteritidis* vaccines have been prepared and the preliminary animal tests have appeared to be equal to or superior in antigenic potency to heat

killed vaccines prepared from the same bacterial suspensions.

Of especial interest to physicians is a supplemental report by Milzer, Oppenheimer, and Levinson in the July 8 issue of the *Journal of the American Medical Association* on the production of inactivated poliomyelitis vaccine prepared by the ultraviolet method. The virus was consistently inactivated in less than one second exposure to the source of irradiation. Mice immunized with three doses of the irradiated poliomyelitis vaccine developed significant resistance to intracerebral inoculation and also specific serum neutralizing antibodies. Furthermore, the vaccine remained fully potent after four and a half months of storage at 3 degrees centigrade. So far no human experimentation has been reported. If this phase of the work should prove as effective as that in animals, a new method of attacking poliomyelitis would be available. It must be emphasized, however, that a great deal more research will have to be done before this desirable goal can be realized.

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#### PROMIN INEFFECTIVE IN TUBERCULOUS MENINGITIS

The statement of the Committee on Therapy of the American Trudeau Society concerning the present status of promin in relation to tuberculosis therapy was presented in the May 13 issue of the *Journal of the American Medical Association*. So far as we are aware, all previous reports of the use of promin in the treatment of tuberculosis in human subjects indicate it has not been strikingly successful. It is of special interest, therefore, to note the results of this substance in the treatment of eleven patients ill with tuberculous meningitis as reported by Morrow, Epstein, and Toomey in the June issue of *The Journal of Pediatrics*. The work was done in the Division of Contagious Diseases, City Hospital, Cleveland, between 1941 and 1943. Six of the patients were male and five were female; six were Negroes and five were white persons. The drug was given intravenously in each case and varied from a total dose of 10 to 225 grams with an average total dose of 53.5 grams. In four of the patients spinal drainage was used to supplement treatment with promin. No toxic effects were noted from the use of the drug. All of the patients died from two to ten days after admission to the hospital, the average length of life in the hospital being 6.5 days.

The authors conclude that promin in these eleven cases of tuberculous meningitis was without any beneficial result in either prolonging or

maintaining life or altering the course of the disease. Thus we have one further demonstration that tuberculous germs still remain to be conquered.

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#### REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

The first meeting of the House of Delegates of the American Medical Association was called to order by the Speaker, Dr. Harrison H. Shoulders, at ten-fifteen Monday morning, June 12, 1944. Dr. Deering G. Smith, chairman of the Reference Committee on Credentials, reported 150 delegates registered. This number later increased to 159.

Three names were submitted for the Distinguished Service Award: Dr. Isaac A. Abt of Chicago, Dr. George Dock of Pasadena, and Dr. Simon Flexner of New York. Of these Dr. Dock received the award.

The addresses of the Speaker, the President, Dr. James E. Paullin, and the President-Elect, Dr. Herman L. Kretschmer, may be found in their entirety in the June 24 issue of the *Journal of the American Medical Association*, and will not be reprinted here. Dr. Shoulders spoke of the manner in which the House of Delegates had met its problems; Dr. Paullin spoke of the work done during the year, particularly in regard to the war effort; and Dr. Kretschmer spoke of the work of the officers and need for active participation by all physicians in an educational program designed to inform the public of the problems involved in governmental control of medicine.

Special emphasis was called to certain portions of the report of the Council on Medical Education and Hospitals, and also the Council on Medical Service and Public Relations. Dr. Frank H. Lahey was most emphatic in pointing out the dangers inherent in the new ruling of Selective Service which will not defer premedical students after July 1. This will create a serious shortage of physicians in 1948 and 1949. The House passed a resolution condemning the present ruling and asking correction.

The report of the Council on Medical Service and Public Relations was very comprehensive and evidenced a great deal of work during the first year of the Council's existence. Opening of a Washington office on April 3, under the direction of Dr. Joseph S. Lawrence, was announced. The platform of the American Medical Association, adopted in 1938, was scrutinized by the Council and revamped in accord with present conditions. It now has one broad general plank, availability



of medical care of a high quality to every person in the United States. In carrying out this objective, it advocates:

1. In the extension of medical services to all people, the utmost utilization of qualified medical and hospital facilities already established.

2. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability, including the development and extension of voluntary hospital insurance and voluntary medical insurance.

3. Expansion of public health and medical services consistent with the American system of democracy.

4. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

5. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

6. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

7. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

8. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

Many recommendations were presented to the House dealing with the organization of the American Medical Association, its officers, with medical service policies, the EMIC program, educational matters, etc. These were studied by the various reference committees and reports were made to the executive session of the House of Delegates. The action of the delegates was conservative and in direct opposition to many of the proposals.

Many military persons were present, among them being Vice Admiral Ross T. McIntire, Major General David N. W. Grant, Major General Norman T. Kirk, and Lieutenant General Robert Kho-sheng Lim. Also present were Dr. T. C. Routley, secretary of the Canadian Medical Association, and Dr. Benvenuto R. Dino, personal physician to the president of the Philippines.

Dr. Roger I. Lee of Boston, former chairman of the Board of Trustees, was made President-Elect; Dr. Stanley J. Seeger of Texarkana, Vice

President; the Secretary and Treasurer were re-elected; Dr. Louis H. Bauer of New York was elected and Dr. Elmer L. Henderson of Louisville reelected to the Board of Trustees. Atlantic City was chosen for the meeting place in 1947.

Thomas F. Thornton, Delegate

#### SIGHT-SAVING PROGRAM AT THE IOWA SCHOOL FOR THE BLIND

In September, 1943, the Iowa School for the Blind established a sight-saving program. One room was equipped with special lighting, green chalk boards, sight-saving desks, and window shades. Large type books were obtained and a teacher with special training in the sight-saving field was employed to handle the class work.

Since the accommodations were limited, the work was confined to students of the elementary age group. Before the close of the school year, twenty-four partially sighted children were receiving all or part of their instruction in the sight-saving room.

The program proved to be of such high value that the school is equipping another room this summer to take care of the needs of partially sighted children in the junior high and high school areas. Although space is limited, it is desired to offer sight-saving class work to as many as possible of the children throughout the state who have too much vision to use braille but not enough sight to read the print found in public school textbooks.

Children may be considered eligible for sight-saving classes if they are in any of the following groups:

1. Children having a visual acuity between 20/70 and 20/200 in the better eye, after refraction.
2. Children with progressive eye difficulties.
3. Children suffering from noncommunicable diseases of the eye or diseases of the body that seriously affect vision.

It is the desire of the Iowa School for the Blind that the doctors, nurses, and school officials throughout the state know of the special service that is now available for the partially sighted children of Iowa. For more detailed information, inquiries may be addressed to Mrs. E. Channing Evans, Field Worker for the Blind, 843 Euclid Avenue, Des Moines 13, Iowa, or the Superintendent of the Iowa School for the Blind, Vinton, Iowa.

#### SAVE MEDICAL JOURNALS

Dr. Jeannette Dean-Throckmorton, Librarian of the Iowa State Medical Library, located in the Historical Building in Des Moines, is most anxious to receive old copies of medical journals. They should be sent direct to her.

## Supplemental Food Rations for the Sick

### Rationing in Wartime

[*Editor's Note: The JOURNAL is pleased to publish this information regarding supplemental food rations for individuals requiring special consideration because of dietary requirements. The material was prepared by the Office of Price Administration to clarify the physician's responsibility in certifying the need for additional war rationed foods.*]

When point rationing was introduced to include a broad range of meats, fats, cheese, dairy products, and processed foods, it became evident that certain consumers would require special consideration because of special dietary needs. Prominent among these are sick individuals whose illness require ration foods in amounts greater than that provided by basic rations. Consequently, the National Research Council was requested to advise the War Food Administration concerning the nature and extent of these special needs and the best method of meeting them.

Within the Division of Medical Sciences of the National Research Council, the Subcommittee on Medical Food Requirements was organized under the general jurisdiction of the committee on Drugs and Medical Supplies. This subcommittee was composed of prominent physicians who represent various fields of medicine. Other committees of the National Research Council were called in consultation, notably the Committee on Surgery and the Subcommittee on Tuberculosis. The opinion of the individual specialist in certain fields of medicine was solicited. Finally, all recommendations of the Subcommittee were reviewed and approved by the parent Committee on Drugs and Medical Supplies before transmission to the War Food Administration.

Any consumer whose health requires that he have more foods covered by Ration Order 13 and 16 (Processed Foods and Meats and Fats) than he can get with points from his War Ration Book may apply for additional points. The application must be made on OPA Form R-315 (obtainable at the Local Board) by the consumer himself or by someone acting for him, and may be made in person or by mail. The application can be made only to the Board for the locality in which the consumer lives. The application (on OPA Form R-315) must contain a written statement signed by a person licensed by the laws of the State to prescribe drugs. However, if the consumer is pregnant, a Public Health Nurse employed by a federal, state, or community public health agency, may sign such statement instead. The statement must contain the following information:

1. Type of diet required and *indications for its use.*
2. Reasons why unrationed foods cannot be substituted for the rationed foods requested.
3. Probable duration of the illness.
4. Kinds and amounts of rationed foods required *in pounds per week.*

The types of diet referred to above for which additional points are required include: (1) bland-ulcer; (2) reduction; (3) high protein; (4) high calorie; and (5) diabetic. Just as a drug may be used in the treatment of more than one disease, so a given type of diet may have a similar diversified use. For that reason, physicians should include in the certification the purposes for which the diet is to be used.

There are several factors involved when a physician prescribes a diet for his patients. He should consider that food requirements of the patient vary greatly with individuals, even among those with the same disease, and no two individuals require the same amount of rationed foods. The first duty of the physician is to estimate in pounds the total amount of rationed foods his patient will require for one week and then deduct from that the proportion of the items which he believes can be substituted by unrationed foods and fresh and home-processed foods which the patient has available. After this deduction is made, the amount in pounds and types of rationed foods needed should be indicated in the certification.

Many foods such as breadstuffs, fresh fruits and vegetables, milk, cream, fish, eggs, and other unrationed foods must not be considered in the requisition and should be substituted in the diet whenever possible. The physician is expected to state accurately on the requisition the total amount of war rationed foods desired for the patient irrespective to the allowance he would receive as an average individual; the ration board or the District Medical Advisory Committee will make the necessary computations. The amount of food required will vary because of occupation, age, weight, and activity. Furthermore, the length of time the patient will be on a diet, the season of the year, convenience to markets where





# Roster of Iowa Physicians in Military Service

As of July 25, 1944

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Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

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Bain, C. L., Corning (Treasure Island, Cal.)..Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (APO 230, New York, N. Y.)..Capt., A.U.S.

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Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.)..Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.).....A.U.S.

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Edwards, R. R., Centerville (Camp Ellis, Ill.).....Capt., A.U.S.  
Husten, M. D., Centerville (Camp Bowie, Texas).....Capt., A.U.S.

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Senfeld, Sidney, Belle Plaine

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Bickley, J. W., Waterloo (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
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Cooper, C. N., Waterloo (Ottumwa, Iowa).....Lt. Comdr., U.S.N.R.  
Ellyson, C. D., Waterloo (Lido Beach, N. Y.).....Lt., U.S.N.R.  
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Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
Ludwick, A. L., Waterloo (APO 813, New York, N. Y.) ..... Major, A.U.S.  
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O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Banana River, Fla.)..Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
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Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.).....Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Ames, Iowa).....Lt., U.S.N.R.

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Healy, M. J., Boone  
Shane, R. S., Pilot Mound (Des Moines, Ia.).....Lt. Col., A.U.S.

## Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.) ..... Major, A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.).....1st Lt., A.U.S.

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Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (APO 9787, New York, N. Y.)..Capt., A.U.S.

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Brecher, P. W., Storm Lake (Camp Adair, Ore.)..Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho).....Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.)..Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.).....Major, A.U.S.

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Andersen, B. V., Greene (Fleet PO, Seattle, Wash.)..Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rofls, F. O., Parkersburg (Springfield, Mo.).....1st Lt., A.U.S.

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Peek, L. H., Lake City (Jefferson Barracks, Mo.)..Capt., A.U.S.

Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (APO 15260, San Francisco, Cal.) ..... Capt., A.U.S.

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Anneberg, W. A., Carroll (APO 367, New York, N. Y.) ..... Capt., A.U.S.  
Cochran, J. L., Carroll (Gulfport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Ft. Dix, N. J.).....Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.).....A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.).....A.U.S.  
Tindall, R. N., Coon Rapids (San Antonio, Texas) ..Major, A.U.S.  
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Needles, R. M., Atlantic (APO 131, New York, N. Y.) ..... Capt., A.U.S.  
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Noble, R. P., Cherokee (APO 634, New York, N. Y.) Capt., A.U.S.  
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Hill, D. E., Clinton (APO 9787, New York, N. Y.) ..Capt., A.U.S.  
King, R. C., Clinton (APO 403, New York, N. Y.) ..Capt., A.U.S.



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 Norment, J. E., Clinton (Washington, D. C.) .....Lt. Comdr., U.S.N.R.  
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 Van Epps, E. F., Clinton (APO 9921, New York, N. Y.) .....Capt., A.U.S.  
 Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Wells, L. L., Clinton (Clinton, Iowa).....Capt., A.U.S.

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 Grau, A. H., Denison, (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
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 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.)..Capt., A.U.S.

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 Nicoll, C. A., Panora (Camp Campbell, Ky.).....Capt., A.U.S.  
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 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.) .....Capt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.) .....Capt., A.U.S.

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 Gilfillan, G. W., Bloomfield (Oceanside, Cal.)..Lt. Comdr., U.S.N.R.

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 Clark, R. E., Manchester (APO 419, New York, N. Y.) .....Capt., A.U.S.

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 Heitzman, P. O., Burlington (Fort Baker, Cal.)....Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.)...Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (Fort Lewis, Wash.) Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.) .....Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.) .....Capt., A.U.S.  
 Sage, E. C., Burlington (Shoemaker, Cal.)..Lt. Comdr., U.S.N.R.

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 Henning, G. G., Milford (Camp Adair, Ore.).....Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtele, Cal.)....Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake (APO 600, New York, N. Y.) .....Major, A.U.S.

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 Conzett, D. C., Dubuque (APO 645, New York, N. Y.) .....Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio)....Capt., A.U.S.  
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.) Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.) .....Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas).....1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.).....Major, A.U.S.  
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 Lavery, H. B., Dubuque (Washington, D. C.)....Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.)....1st Lt., A.U.S.  
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.) Capt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.) 1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.) .....Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.).....Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.) Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.) .....1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.) Major, A.U.S.  
 Smith, C. W., Dubuque (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.)...Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas)....Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Great Lakes, Ill.)....Lt. Comdr., U.S.N.R.

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 Collins, L. E., Estherville (Camp Dodge, Iowa).....A.U.S.

Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.

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Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.).....Major, A.U.S.  
 Sulzbach, J. F., Oelwein  
 Walsh, W. E., Hawkeye (Port Chicago, Cal.) Lt. Comdr., U.S.N.R.

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Baltzell, W. C., Charles City (APO 2, New York, N. Y.) .....Major, A.U.S.  
 Flater, N. C., Floyd (APO 183, Los Angeles, Cal.)..Capt., A.U.S.  
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Mackie, D. G., Charles City (APO 9589, New York, N. Y.) .....1st Lt., A.U.S.  
 Miner, J. B., Jr., Charles City (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.) .....Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.).....Lt., U.S.N.R.  
 Walton, S. G., Hampton (APO New York, N. Y.)...Capt., A.U.S.

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 Marrs, W. D., Tabor (Randolph Field, Texas)....Capt., A.U.S.  
 Powell, R. A., Farragut (Great Lakes, Ill.)....Lt. (jg), U.S.N.R.  
 Wanamaker, A. R., Hamburg (Los Angeles, Cal.)..Capt., A.U.S.

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 Castles, W. A., Rippey (APO 958, San Francisco, Cal.) .....Major, A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.) .....Capt., A.U.S.  
 Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Limburg, J. L., Jr., Jefferson (APO 503, San Francisco, Cal.) .....Major, A.U.S.  
 Lohr, P. E., Churdan (San Diego, Cal.).....A.U.S.

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 Rose, J. E., Grundy Center (Des Moines, Iowa) .....Lt. Comdr., U.S.N.R.

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 Howar, B. F., Jewell (APO 514, New York, N. Y.) Major, A.U.S.  
 James, D. W., Kamrar (APO 782, New York, N. Y.) .....Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 383, New York, N. Y.) .....Major, A.U.S.  
 Mooney, F. P., Jewell (London, England).....Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Berkeley, Texas) ..Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.) .....Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.) .....Capt., A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.)....Capt., A.U.S.

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Dolmage, G. H., Buffalo Center (Nashville, Tenn.)..Capt., A.U.S.  
 Dulmes, A. H., Klemme (APO 1778, New York, N. Y.) .....Capt., A.U.S.  
 Eller, L. W., Kanawha (APO 302, New York, N. Y.) .....Capt., A.U.S.  
 Irish, T. J., Forest City (Farragut, Idaho)....Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Delhart, Tex.).....Major, A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.)..Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.)...Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.) .....1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.) .....Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Ft. Sill, Okla.).....Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.).....Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.).....1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.) Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Camp Pickett, Va.)..A.U.S.  
 Burbridge, G. E., Logan (APO 511, New York, N. Y.) .....Major, A.U.S.  
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.)..Capt., A.U.S.  
 Heise, C. A., Jr., Missouri Valley (San Pedro, Cal.) Lt., U.S.N.R.  
 Tamisiea, F. X., Missouri Valley (Jefferson Barracks, Mo.) .....Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) .....Major, A.U.S.

Dwankowski, Carl, Mt. Pleasant (APO 505, New York, N. Y.).....Capt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (Fort McPherson, Ga.).....Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (Chico, Cal.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.  
 Martin, J. W., Holstein (Montgomery, Ala.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

#### Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.  
 Gittler, Ludwig, Fairfield (APO 1001, New York, N. Y.).....Lt. Col., A.U.S.  
 Graber, H. E., Fairfield Galesburg, Ill.....Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

#### Johnson County

Agnew, J. W., Iowa City (Trinidad, Colo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.  
 Boiler, W. F., Iowa City (Fort Leonard Wood, Mo.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.  
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (San Francisco, Cal.).....Lt., U.S.N.R.  
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.  
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Key West, Fla.).....Lt., U.S.N.R.  
 Dorner, R. A., Iowa City (APO 534, New York, N. Y.).....Capt., A.U.S.  
 Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Emmons, M. B., Iowa City (Abilene, Texas).....Capt., A.U.S.  
 Flax, Ellis, Iowa City (Fort Jackson, S. Car.).....1st Lt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourt, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.  
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York, N. Y.).....Major, A.U.S.  
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.  
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (Camp Forrest, Tenn.).....Capt., A.U.S.  
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 January, L. E., Iowa City (McCook, Nebr.).....Capt., A.U.S.  
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.  
 Keislars, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Longwell, F. H., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.  
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagyfy, S. F., Iowa City (Memphis, Tenn.).....Lt. (jg), U.S.N.R.  
 Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.  
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.  
 Sells, R. L., Jr., Iowa City (Chico, Cal.).....Capt., A.U.S.  
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Stargis, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.

Stump, R. B., Iowa City (Fort Leonard Wood, Mo.).....Capt., A.U.S.  
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.  
 Trappaso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.  
 Russell, R. E., Iowa City (Ft. McPherson, Ga.).....1st Lt., A.U.S.  
 Vest, W. M., Iowa City (Fort Missoula, Mont.).....Capt., A.U.S.  
 Ward, R. H., Iowa City (Cherry Point, N. C.).....Lt. Comdr., U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 923, San Francisco, Cal.).....1st Lt., A.U.S.  
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

#### Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.  
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.  
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Hendricks, A. B., Iowa City (Farragut, Idaho).....Lt., U.S.N.  
 Hovis, Wm., Iowa City (San Diego, Cal.).....Lt. (jg), U.S.N.R.  
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.  
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.  
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Treasure Island, Cal.).....Lt. (jg), U.S.N.R.  
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.  
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.  
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Moen, B. H., Iowa City.....A.U.S.  
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Odell, Lester, Iowa City (Alameda, Cal.).....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.  
 Pulliam, R. L., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.  
 Randall, C. G., Iowa City.....A.U.S.  
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.  
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.  
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shapiro, S. I., Iowa City.....A.U.S.  
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.  
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.  
 Skouge, O. T., Iowa City.....A.U.S.  
 Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.  
 Watters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.  
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.  
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.  
 Willumsen, H. C., Iowa City (Chico, Cal.).....Capt., A.U.S.  
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.  
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Zahrt, N. E., Iowa City (Miami Beach, Fla.).....1st Lt., A.U.S.  
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

#### Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.  
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.  
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.  
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.  
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.).....A.U.S.

#### Kossuth County

Clapsaddle, D. W., Burt (APO 519, New York, N. Y.).....Capt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Williams, R. L., Lakota (San Francisco, Cal.).....Lt. Comdr., U.S.N.R.



**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) ..... Capt., A.U.S.  
 Cooper, R. E., Keokuk (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.  
 Johnstone, A. A., Keokuk (Camp Fannin, Texas) ..... Col., A.U.S.  
 McKee, T. L., Keokuk (APO 928, San Francisco, Cal.) ..... Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) ..... Major, A.U.S.  
 Rankin, J. R., Keokuk (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) ..... Lt. Comdr., U.S.N.R.  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) ..... Capt., A.U.S.  
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) ..... Major, A.U.S.  
 Berney, P. W., Cedar Rapids (San Francisco, Cal.) ..... Capt., A.U.S.  
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.) ..... Capt., A.U.S.  
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) ..... Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) ..... A.U.S.  
 Courter, W. O., Springville (APO 464, New York, N. Y.) ..... Major, A.U.S.  
 Crew, P. I., Marion (Monroe, La.) ..... Capt., A.U.S.  
 Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) ..... Major, A.U.S.  
 Dunn, F. C., Cedar Rapids (Kearney, Nebr.) ..... Major, A.U.S.  
 Gearhart, Merriam, Springville (Phoenixville, Pa.) ..... Major, A.U.S.  
 Halpin, L. J., Cedar Rapids (Atlanta, Ga.) ..... Major, A.U.S.  
 Hecker, J. T., Cedar Rapids (Gardner Field, Cal.) ..... Capt., A.U.S.  
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Keith, J. J., Marion (Menlo Park, Cal.) ..... Major, A.U.S.  
 Kieck, E. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Kruckenberger, W. G., Mount Vernon (Portsmouth, Va.) ..... Lt., U.S.N.R.  
 Leedom, Charles, Springville ..... Major, A.U.S.  
 Locher, R. C., Cedar Rapids (Camp Swift, Texas) ..... Major, A.U.S.  
 †MacDougall, R. F., Cedar Rapids (APO 9057, New York, N. Y.) ..... Capt., A.U.S.  
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) ..... Major, A.U.S.  
 McQuiston, J. S., Cedar Rapids (Salina, Kan.) ..... Major, A.U.S.  
 Meffert, C. B., Cedar Rapids (APO 9787, New York, N. Y.) ..... Major, A.U.S.  
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) ..... Major, A.U.S.  
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) ..... 1st Lt., A.U.S.  
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) ..... Major, A.U.S.  
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Lt. Comdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (Camp Blanding, Fla.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stansbury, J. R., Cedar Rapids (APO 941, Seattle, Wash.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 34, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) ..... Lt. Comdr., U.S.N.

**Louisa County**

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Lucas County**

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

**Lyon County**

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Major, A.U.S.  
 †Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Madison County**

Boden, H. N., Truro (Fresno, Cal.) ..... Capt., A.U.S.  
 Chesnut, P. F., Winterset (Salem, Ore.) ..... Capt., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Lt. Col., A.U.S.

**Mahaska County**

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) ..... Major, A.U.S.

Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Marine Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Lemon, K. M., Oskaloosa ..... 1st Lt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) ..... Capt., A.U.S.

**Marion County**

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) ..... Major, A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Bastrop, Texas) ..... 1st Lt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

**Marshall County**

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) ..... Major, A.U.S.  
 Meyer, M. G., Marshalltown (Ft. Geo. Meade, Md.) ..... Major, A.U.S.  
 Noonan, J. J., Marshalltown (APO 928, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (APO 520, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (Portland, Ore.) ..... Capt., A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) ..... 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (Fort Riley, Kan.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Mills County**

DeYoung, W. A., Glenwood (APO 813, New York, N. Y.) ..... Capt., A.U.S.  
 Magaret, E. C., Glenwood (APO 462, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 230, New York, N. Y.) ..... Capt., A.U.S.

**Mitchell County**

Culbertson, R. A., St. Ansgar (Camp Campbell, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (APO 591, New York, N. Y.) ..... Major, A.U.S.  
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

**Monona County**

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... Capt., A.U.S.  
 Anderson, S. N., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 928, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gaukel, L. A., Onawa (Fort Riley, Kan.) ..... Capt., A.U.S.  
 †Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Lewis, Wash.) ..... Major, A.U.S.  
 Wainwright, M. T., Mapleton (APO 939, Seattle, Wash.) ..... A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

**Monroe County**

Gilliland, C. H., Albia (Quonset Point, R. I.) ..... Lt., U.S.N.R.  
 Heimann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Major, A.U.S.  
 Smith, R. A., Albia (New Cumberland, Pa.) ..... Capt., A.U.S.

**Montgomery County**

Bastron, H. C., Red Oak (APO 953, San Francisco, Cal.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) ..... Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

**Muscatine County**

Ady, A. E., West Liberty (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) ..... Capt., A.U.S.  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO, Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) ..... Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Lt. Col., A.U.S.

**O'Brien County**

Getty, E. B., Primghar (APO 117, New York, N. Y.) ..... Capt., A.U.S.  
 Hayne, W. W., Paullina (APO 638, New York, N. Y.) ..... Capt., A.U.S.  
 Moen, S. T., Hartley (APO 689, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

**Osceola County**

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

**Page County**

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Bossingham, E. N., Clarinda (Fort Ord, Cal.) ..... Major, A.U.S.  
 Bunch, H. McK., Shenandoah (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 †Burdick, F. D., Shenandoah (APO, New York, N. Y.) ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (Denver, Colo.) ..... Major, A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) ..... Capt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

**Palo Alto County**

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Plymouth County**

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Denver, Colo.) ..... 1st Lt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... Capt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

**Pocahontas County**

Blair, F. L., Jr., Fonda (San Antonio, Texas) ..... Lt., U.S.N.R.  
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.

**Polk County**

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Major, A.U.S.  
 Bates, M. T., Des Moines (Corona, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Riverside, Cal.) ..... Capt., A.U.S.  
 Brown, A. W., Des Moines (Camp Grant, Ill.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (Fort Bliss, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 †Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef-Offizierlager XXI B, Deutschland [Alleman]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (Concordia, Kan.) ..... 1st Lt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
 Connell, J. R., Des Moines (Phoenixville, Pa.) ..... Major, A.U.S.  
 Corn, H. H., Des Moines (St. Louis, Mo.) ..... Capt., A.U.S.  
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) ..... Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) ..... 1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Ft. Snelling, Minn.) ..... 1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 628, New York, N. Y.) ..... Major, A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas) ..... Capt., A.U.S.  
 Ellis, H. G., Des Moines (APO 16242A, San Francisco, Cal.) ..... Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas) ..... Major, A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Fracasse, John, Des Moines ..... 1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines .....  
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) ..... Major, A.U.S.  
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.) ..... Capt., A.U.S.  
 Goldberg, Louie, Des Moines (APO 9764, San Francisco, Cal.) ..... Capt., A.U.S.

Gordon, A. M., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Gurau, H. H., Des Moines (Santa Ana, Cal.) ..... Capt., A.U.S.  
 Haines, D. J., Des Moines (APO 708, San Francisco, Cal.) ..... Capt., A.U.S.  
 Harris, D. D., Des Moines (Gulftport, Miss.) ..... Lt. Comdr., U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.) ..... 1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 James, A. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Los Angeles, Cal.) ..... Capt., A.U.S.  
 Kelley, E. J., Des Moines (Marshall, Mo.) ..... Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.) ..... Lt. Col., A.U.S.  
 Klocksiem, H. L., Des Moines ..... Lt. (jg), U.S.N.R.  
 Kottke, E. E., Des Moines (Temple, Texas) ..... Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.) ..... 1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Lederman, James, Des Moines ..... 1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.) ..... Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (APO 5444, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) ..... 1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.) ..... 1st Lt., A.U.S.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa) ..... Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (APO 5541, New York, N. Y.) ..... Major, A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines ..... 1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) ..... Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Morden, R. P., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Mumma, C. S., Des Moines (Los Angeles, Cal.) ..... Major, A.U.S.  
 Murphy, J. H., Des Moines (Barstow, Cal.) ..... Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.) ..... Major, A.U.S.  
 Noun, L. J., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Noun, M. H., Des Moines (APO 514, New York, N. Y.) ..... Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.) ..... 1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.) ..... Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.) ..... Capt., A.U.S.  
 Penn, E. C., West Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Pfeiffer, E. P., Des Moines (Springfield, Mo.) ..... Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corona, Cal.) ..... Lt., U.S.N.R.  
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Powell, L. D., Des Moines (Oceanside, Cal.) ..... Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Priestley, J. B., Des Moines (Camp Phillips, Kan.) ..... Major, A.U.S.  
 Purdy, W. O., Des Moines (Camp Grant, Ill.) ..... Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.) ..... Major, A.U.S.  
 Robinson, V. C., Des Moines (Tampa, Fla.) ..... Major, A.U.S.  
 Rotkow, M. J., Des Moines (Louisville, Ky.) ..... Capt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.  
 Shepherd, L. K., Des Moines (APO New York, N. Y.) ..... Major, A.U.S.  
 Shiffer, H. K., Des Moines (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.) ..... 1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (New Orleans, La.) ..... 1st Lt., U.S.P.H.S.  
 Smead, H. H., Des Moines (APO 595, New York, N. Y.) ..... Capt., A.U.S.  
 Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.) ..... Capt., A.U.S.  
 \*Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.) ..... Capt., A.U.S.  
 Snyder, G. E., Grimes (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
 Sohm, H. A., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sorensen, R. M., Des Moines (Topeka, Kan.) ..... Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.



Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.  
 Stickler, Robert, Des Moines (Fort Benning, Ga.)...Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (APO 403, New York,  
 N. Y.).....Major, A.U.S.  
 Toubes, A. A., Des Moines (APO 635, New York,  
 N. Y.).....Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas)...Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.) 1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (APO 515, New York,  
 N. Y.).....Capt., A.U.S.  
 Vaubel, E. K., Des Moines (Silver Spring, Md.)...Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.)...1st Lt., A.U.S.  
 Willett, W. M., Des Moines (APO 507, New York,  
 N. Y.).....Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.  
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.)...Capt., A.U.S.

#### Pottawattamie County

‡Beaumont, F. H., Council Bluffs (APO 34, New York,  
 N. Y.).....Major, A.U.S.  
 Cogley, J. P., Council Bluffs (APO 322, Unit I, San Francisco,  
 Cal.).....Lt. Col., A.U.S.  
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco,  
 Cal.).....Lt. U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.)...Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Pensacola, Fla.)...Lt. Comdr., U.S.N.R.  
 Floersch, E. B., Council Bluffs (Bremerton,  
 Wash.).....Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Fleet PO, San Francisco,  
 Cal.).....Lt. U.S.N.R.  
 Jensen, A. L., Council Bluffs (Temple, Texas)...Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego,  
 Cal.).....Lt. U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.)...Capt., A.U.S.  
 Lambert, E. M., Council Bluffs (APO 9907, New York,  
 N. Y.).....Capt., A.U.S.  
 Linden, S. D., Council Bluffs (Camp Hood, Texas)...Major, A.U.S.  
 Martin, L. R., Council Bluffs (Santa Barbara, Cal.)...Capt., A.U.S.  
 Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.  
 Moskovitz, J. M., Council Bluffs (APO 403, New York,  
 N. Y.).....Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island,  
 N. Y.).....Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (Springfield, Mo.)...Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 600, New York,  
 N. Y.).....Capt., A.U.S.  
 Treynor, J. V., Council Bluffs (Fleet PO, San Francisco,  
 Cal.).....Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (APO 552, New York,  
 N. Y.).....1st Lt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.)...A.U.S.  
 Wurl, O. A., Council Bluffs (APO 871, New York,  
 N. Y.).....Capt., A.U.S.

#### Poweshiek County

Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.)...Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.)...1st Lt., A.U.S.  
 Korfmacher, E. S., Grinnell (San Francisco,  
 Cal.).....Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco,  
 Cal.).....Capt., A.U.S.  
 Parish, J. R., Grinnell (Fleet PO, San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.  
 Somers, P. E., Grinnell (St. Louis, Mo.).....1st Lt., A.U.S.

#### Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.)...Major, A.U.S.

#### Sac County

Bassett, G. H., Sac City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 1001, New York,  
 N. Y.).....Capt., A.U.S.  
 Evans, W. I., Sac City (APO 9212, New York,  
 N. Y.).....Capt., A.U.S.  
 Klocksien, R. G., Odebolt (San Diego, Cal.)...Lt. U.S.N.R.  
 Neu, H. N., Sac City (APO 708, San Francisco,  
 Cal.).....Lt. Col., A.U.S.

#### Scott County

Baker, R. W., Davenport (APO 511, New York,  
 N. Y.).....Capt., A.U.S.  
 Balzer, W. J., Davenport (APO 939, Seattle, Wash.) Capt., A.U.S.  
 Bishop, J. F., Davenport (APO 729, Seattle,  
 Wash.).....Capt., A.U.S.  
 Block, L. A., Davenport (Clinton, Iowa).....Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York,  
 N. Y.).....Capt., A.U.S.  
 Boyer, U. S., Davenport (Rock Island, Ill.)...Lt. Col., A.U.S.  
 Brown, D. H., Davenport (Waycross, Ga.).....Capt., A.U.S.  
 Brown, M. J., Davenport (Camp Hale, Colo.)...Major, A.U.S.  
 Carey, E. T., Davenport (APO 928, San Francisco,  
 Cal.).....1st Lt., A.U.S.  
 Christiansen, C. C., Dixon (APO 961, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Coleman, Tom, Davenport (Camp Stewart, Ga.)...1st Lt., A.U.S.  
 Cummins, G. M., Jr., Davenport.....1st Lt., A.U.S.

Decker, C. E., Davenport (Oklahoma City,  
 Okla.).....1st Lt., A.U.S.  
 Evans, H. J., Davenport (APO 9826, New York,  
 N. Y.).....Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.)...Major, A.U.S.  
 Goenne, Wm., Jr., Davenport (Camp White, Ore.) 1st Lt., A.U.S.  
 Hurevitz, H. M., Davenport (APO 370, New York,  
 N. Y.).....Major, A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York,  
 N. Y.).....1st Lt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Barkeley,  
 Texas).....Major, A.U.S.  
 Kimberly, L. W., Davenport (Hines, Ill.).....Capt., A.U.S.  
 Krakauer, Max, Davenport (Camp Ellis, Ill.)...Capt., A.U.S.  
 Kuhl, A. B., Jr., Davenport (Carlisle Barracks,  
 Pa.).....1st Lt., A.U.S.  
 LaDage, L. H., Davenport (APO 180, Los Angeles,  
 Cal.).....Major, A.U.S.  
 Lorfeld, G. W., Davenport (Columbus, Ohio)....Capt., A.U.S.  
 Marker, J. I., Davenport (Camp Barkeley, Texas)...Col., M.R.C.  
 McMeans, T. W., Davenport (APO 514, New York,  
 N. Y.).....1st Lt., A.U.S.  
 Neufeld, R. J., Davenport (APO 9575, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Perkins, R. M., Davenport (Carlisle Barracks,  
 Pa.).....1st Lt., A.U.S.  
 Sheeler, I. H., Davenport (Camp Crowder, Mo.)...Capt., A.U.S.  
 Shorey, J. R., Davenport (APO 647, New York,  
 N. Y.).....Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 230, New York,  
 N. Y.).....Capt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.)...Lt. Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (APO 322, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Weinberg, H. B., Davenport (Fort Benning, Ga.)...Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.)...Capt., A.U.S.

#### Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Griffith, W. O., Shelby (APO 9490, New York,  
 N. Y.).....Capt., A.U.S.  
 McGowan, J. P., Harlan (Fleet PO, San Francisco,  
 Cal.).....Lt. Comdr., U.S.N.R.

#### Sioux County

Gleysteen, R. R., Alton (Silver Spring, Md.)...Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (APO 572, New York,  
 N. Y.).....Capt., A.U.S.  
 Larson, M. O., Hawarden (Camp Bowie, Texas)...Major, A.U.S.  
 Oelrich, A. M., Hull (APO New York, N. Y.)...1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.) 1st Lt., A.U.S.

#### Story County

Conner, J. D., Nevada (APO 708, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Fellows, J. G., Ames (Camp Breckenridge, Ky.)...Major, A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.)...Lt. U.S.N.R.  
 McFarland, J. E., Ames (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (Del Valle, Texas).....Capt., A.U.S.  
 Sperow, W. B., Nevada (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamagordo, N. Mex.)...Major, A.U.S.  
 Wall, David, Ames (Ft. Dix, N. J.).....1st Lt., A.U.S.

#### Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.) Capt., A.U.S.  
 Boller, G. C., Traer (Camp Carson, Colo.).....Capt., A.U.S.  
 Dobias, S. G., Chelsea (Vancouver, Wash.).....Capt., A.U.S.  
 Havlik, A. J., Tama (San Diego, Cal.).....Lt. U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.)  
 Standefer, J. M., Tama (Des Moines, Iowa).....Lt., U.S.N.R.

#### Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco,  
 Cal.).....1st Lt., A.U.S.

#### Union County

Beatty, H. G., Creston (New Orleans, La.).....1st Lt., A.U.S.  
 Paragas, M. R., Creston (APO 503, San Francisco,  
 Cal.).....Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.).....Capt., A.U.S.

#### Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York,  
 N. Y.).....1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO 366, New York,  
 N. Y.).....Lt. Col., A.U.S.  
 Giffilan, C. D., Eldon (Battle Creek, Mich.)...Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.)...Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (Camp Butler, N. C.)...Capt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa.....Capt., A.U.S.  
 Prewitt, L. H., Ottumwa (Atlantic City, N. J.)...Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas).....Lt. Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.)...Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego,  
 Cal.).....Lt. Comdr., U.S.N.R.  
 Wolfe, W. C., Ottumwa (Fleet PO, San Francisco,  
 Cal.).....Lt. (jg) U.S.N.R.

#### Warren County

Fullgrabe, E. A., Indianola (San Diego, Cal.)...Lt., U.S.N.R.  
 Hoffman, G. R., Lacona (Camp San Louis Obispo,  
 Cal.).....Capt., A.U.S.

Shaw, E. E., Indianola (APO 834, New Orleans, La.) .....Capt., A.U.S.  
 Trueblood, C. A., Indianola (APO 871, New York, N. Y.) .....Capt., A.U.S.

**Washington County**

Boice, C. L., Washington (Fleet PO, New York, N. Y.) .....Lt., U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) .....Comdr., U.S.N.R.  
 Mast, T. M., Washington (Portland, Ore.) .....Lt., U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.) 1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Ware, S. C., Kalona (APO 15275, New York, N. Y.) .....Capt., A.U.S.

**Wayne County**

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) .....Capt., A.U.S.

**Webster County**

Baker, C. J., Fort Dodge (APO New York, N. Y.) .....Capt., A.U.S.  
 Burch, E. S., Dayton (APO 709, San Francisco, Cal.) .....Capt., A.U.S.  
 Burleson, M. W., Fort Dodge (Pasadena, Cal.) .....1st Lt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa) .....Major, A.U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.) .....Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.) .....Lt. Comdr., U.S.N.R.  
 Joyner, N. M., Fort Dodge (Brooklyn Field, Ala.) .....Lt. Comdr., U.S.N.R.  
 Kluever, H. C., Fort Dodge (Pensacola, Fla.) .....Lt. Comdr., U.S.N.R.  
 Larsen, H. T., Fort Dodge (Pensacola, Fla.) .....Lt., U.S.N.R.  
 Shrader, J. C., Fort Dodge (Camp Forrest, Tenn.) .....Major, A.U.S.  
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) .....Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) .....Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.) .....Capt., A.U.S.

**Winneshiek County**

Fritchen, A. F., Decorah (Treasure Island, Cal.) .....Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) .....Lt. Col., A.U.S.  
 Howard, W. H., Decorah .....Capt., A.U.S.  
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Cal.) .....Lt. (jg), U.S.N.R.  
 Van Besien, G. J., Decorah (APO New York, N. Y.) .....1st Lt., A.U.S.

**Woodbury County**

Bettler, P. L., Sioux City (APO 962, San Francisco, Cal.) .....Major, A.U.S.  
 Blackstone, M. A., Sioux City (Camp Stoneman, Cal.) .....Capt., A.U.S.  
 Boe, Henry, Sioux City (APO 709, San Francisco, Cal.) .....Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 ‡Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) .....Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) .....Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa) .....1st Lt., A.U.S.  
 Down, H. L., Sioux City (Ft. Devens, Mass.) .....Lt. Col., A.U.S.  
 Elson, V. J., Danbury (APO 9375, New York, N. Y.) .....Capt., A.U.S.  
 Frank, L. J., Sioux City (Vallejo, Cal.) .....Comdr., U.S.N.R.  
 Graham, J. W., Sioux City (Pensacola, Fla.) .....Lt. Comdr., U.S.N.R.  
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) .....Capt., A.U.S.  
 Harris, D. M., Sioux City (Carlisle Barracks, Pa.) .....Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Sioux City, Iowa) .....Capt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.) .....Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.) .....Major, A.U.S.  
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) .....Capt., A.U.S.  
 Knott, P. D., Sioux City (Camp Crowder, Mo.) .....Capt., A.U.S.  
 Knott, R. C., Sioux City (Fort Bragg, N. C.) .....Major, A.U.S.  
 Krigten, W. M., Sioux City (Springfield, Mo.) .....Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (Camp Maxey, Texas) .....Major, A.U.S.  
 Martin, R. F., Sioux City (APO 652, New York, N. Y.) .....Capt., A.U.S.  
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) .....1st Lt., A.U.S.  
 McCuiston, H. M., Sioux City (APO 813, New York, N. Y.) .....Capt., A.U.S.  
 Mugan, R. C., Sioux City (APO 210, New York, N. Y.) .....Capt., A.U.S.  
 Osineup, P. W., Sioux City (APO 9101, New York, N. Y.) .....Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.) .....Capt., A.U.S.  
 Reeder, J. E., Jr., Sioux City (APO 9648, New York, N. Y.) .....Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.) .....Major, A.U.S.  
 Schwartz, J. W., Sioux City (Camp Crowder, Mo.) .....Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Ephrata, Wash.) .....Capt., A.U.S.

**Worth County**

Westly, G. S., Manly (APO 4580, San Francisco, Cal.) .....Major, A.U.S.

**Wright County**

Aagesen, C. A., Dows (APO 383, New York, N. Y.) .....Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.) .....Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Ephrata, Wash.) .....Capt., A.U.S.  
 Gorrell, R. L., Clarion (Brooklyn, N. Y.) .....P.A. Surg., U.S.P.H.S.  
 Leinbach, S. P., Belmond (Farragut Air Base, Idaho) .....Capt., A.U.S.  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) .....Capt., A.U.S.

(\*) Reported missing in action.

(†) Reported killed in action.

(‡) Reported prisoner of war.

## MEETING OF THE MISSISSIPPI VALLEY MEDICAL SOCIETY

The Tenth Annual Meeting of the Mississippi Valley Medical Society will be held at the Pere Marquette Hotel in Peoria, Illinois, September 27 and 28. Over twenty leading clinician-teachers will put on the usual intensive program that has always featured this "The Midwest's Greatest Intensive Postgraduate Assembly for General Practitioners." September 27 will feature an All-Chicago program together with a fellowship hour and banquet. September 28 will feature an All-St. Louis program which will include a roundtable discussion on Hypertension. There will be a big Exhibit Hall with numerous technical and scientific exhibits. A partial list of speakers includes: Drs. R. B. Allen, E. L. Compere, W. H. Cole, Eric Oldberg and W. O. Thompson of the University of Illinois; Drs. Loyal Davis, N. C. Gilbert and A. C. Ivy of Northwestern University; Dr. David Slight of the University of Chicago; Drs. H. C. Allen, Edward Massie, R. A. Moore and Karl Wattenberg of Washington University; Dr. O. P. J. Falk, R. M. Klemme, R. O. Muether and Alphonse McMahon of St. Louis University; Dr. E. P. Coleman, president, Illinois State Medical Society; Dr. M. C. Hennessy, president, Iowa State Medical Society; and Dr. A. S. Bristow, president-elect, Missouri State Medical Association.

The entire program will be practical and will feature bedside medicine. All ethical physicians are invited to attend. Medical officers of the Army and Navy are cordially invited to be guests of the Society. A detailed program of the meeting may be obtained from the Secretary, Harold Swanberg, M.D., 209-224 W. C. U. Bldg., Quincy, Illinois.

## CHANGE OF ADDRESS

Help your central office to maintain an accurate mailing list.

Send your changes of address promptly to The Journal,  
 505 Bankers Trust Bldg.,  
 Des Moines, Iowa.



# SPEAKERS BUREAU ACTIVITIES

## Wartime Meeting at Schick General Hospital August 11

Plans have now been completed for the all-day meeting at Schick General Hospital in Clinton, Friday, August 11. The Bureau is deeply indebted to Lt. Col. Carrington for arranging such an instructive and interesting program for the members of the State Society. We are also grateful to Commanding Officer Colonel Dean F. Winn and the members of his staff for their support and cooperation in presenting this conference.

From the following program it is apparent that there will be cases of interest to all practitioners, and we urge each of you to make every possible effort to attend.

### Morning Session

10:00 Ward Walks

#### MEDICAL SECTIONS

Under the auspices of Lt. Col. Benjamin M. Banks, M.C.

Internal Medicine	Cardiovascular
Pulmonary Allergy	Neuropsychiatry
Dermatology	Venereal Diseases
Gastro-Intestinal	

#### SURGICAL SERVICE

Under the auspices of Lt. Col. William J. Carrington, M.C.

General Surgery  
Septic Surgery and Penicillin  
Physical Therapy  
Occupational Therapy  
Orthopedics  
Eye, Ear, Nose and Throat  
Urology  
Neurosurgery

#### LABORATORY SERVICE

Under the auspices of Captain Julius Rosenthal, M.C.

#### X-RAY SERVICE

Under the auspices of Captain Pat Riley, M.C.

12:30 Mess

Army style, at 50 cents per person, in the Patients' South Mess Hall, Building No. 35.

### Afternoon Session

2:00 Post Theater

Three groups of cases will be presented and discussed.

#### WAR INJURIES—RECONSTRUCTIVE MEASURES

1. Bone and Tendon Lesions—Illustrative Cases

Major Joseph E. Milgram, M.C., Chief of the Orthopedic Section, Schick General Hospital.

Discussed by Arthur Steindler, M.D., Professor of Orthopedic Surgery, State University of Iowa, Iowa City.

2. Neuropsychiatric Trauma — Illustrative Cases

Major Franklin O. Meister, M.C., Chief of the Neuropsychiatric Section, Schick General Hospital.

Discussed by J. Charnley McKinley, M.D., University of Minnesota Medical School, Minneapolis.

3. Peripheral Nerve Lesions — Illustrative Cases

Major Samuel Shenkman, M.C., Chief of the Neurosurgical Section, Schick General Hospital.

Discussed by Alfred W. Adson, M.D., Professor of Neurosurgery, Mayo Foundation, Rochester.

4:30 Post Gymnasium

Demonstration on Reconditioning

5:30 Mess

Army style, at 50 cents per person, in the Patients' South Mess Hall, Building No. 35.

### Evening Session

6:30 Post Theater

Welcome

Colonel Dean F. Winn, M.C., Commanding Officer, Schick General Hospital.

Surgery and the War

Brigadier General Fred Rankin, M.C., Surgical Consultant to the Surgeon General of the United States Army.

Medicine in the Postwar Period

Morris Fishbein, M.D., Editor of the Journal of the American Medical Association.

An Appreciation

M. C. Hennessy, M.D., President of the Iowa State Medical Society.

### SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:05 p. m.

WSUI—Thursdays at 9:00 a. m.

August 2-3 The Rôle of Dental Care in Good Health

O. E. Hoffman, D.D.S.

August 9-10 Hay Fever

Carl E. Sampson, M.D.

August 16-17 Is Your Child Ready for School?

J. Fred Gerken, M.D.

August 23-24 Whooping Cough

Cornelius B. Murphy, M.D.

August 30-31 Malaria and Other Tropical Diseases

Irving H. Borts, M.D.

# WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

*President*—MRS. JAY C. DECKER, Sioux City

*President-Elect*—MRS. SOREN S. WESTLY, Manly

*Secretary*—MRS. ALLEN C. STARRY, Sioux City

*Treasurer*—MRS. ARTHUR E. MERKEL, Des Moines

## ANNUAL REPORTS OF COUNTY AUXILIARIES

### Cass County

The Cass County Auxiliary has had no meetings this year. We have no report to make except that we still pay dues and send *Hygeia* to the City Library and the City Hall Rest Room for Women. Everyone is so busy with other projects that no time has been found for meetings. We hope to carry on after the war. Practically all the younger women are gone and we older ones are lacking in energy.

Mrs. R. L. Barnett, Atlantic

### Dallas-Guthrie Society

The Woman's Auxiliary to the Dallas-Guthrie Medical Society was organized July 24, 1928. There were 26 members enrolled January, 1943.

During the year several members moved out of or to some other part of the state. The Auxiliary was saddened by the passing of one of its most loyal members, Mrs. E. L. Bower of Guthrie Center. She was a past president of the State Auxiliary. There have been five state presidents from this Auxiliary.

"Health for Victory" was the program for the year. All topics were selected from the State Auxiliary program. Four regular meetings were held during the year. The social activities, which were so much enjoyed by the members, were curtailed owing to the emergency of the times.

The Auxiliary has to its credit 33 subscriptions to *Hygeia*, for which it received honorable mention. It has three subscribers to the *Bulletin*.

To date the Auxiliary has given \$30.00 to the Nurses Loan Fund.

Mrs. K. M. Chapler of Dexter has given five talks on the Wagner-Murray-Dingell Bill and has prepared a set of questions and answers to be used as a panel discussion for any group wishing to make use of them.

While this report may seem brief for an Auxiliary, individually the members are actively engaged in work pertaining to all branches of the war effort and contributing more to the objects of the Auxiliary than at any previous time.

Mrs. C. E. Porter, Redfield, President

### Dubuque County

The Auxiliary to the Dubuque County Medical Society held three business meetings during the year 1943-44.

Thirteen members gave of their time knitting and sewing and working in the surgical dressing room. There were 113 hours given to sewing at The Finley Hospital; 742 hours at St. Joseph's Mercy Hospital; 643 hours at Red Cross rooms knitting and sewing, and 2,292 hours at the Surgical Dressing room. One member finished the First Aid Class and one the Nutrition Class.

*Hygeia* was presented to the two hospitals, Public Library, and The Boys Club. Twenty-two subscriptions to this magazine were secured.

At Christmas time we sent to Schick General Hospital at Clinton a lovely box containing waste paper baskets and ash trays. A week's supply of cookies was furnished the USO Center at Savanna, Illinois.

When Mrs. Reiley, our state president, visited our group, she seemed pleased to hear of the work we were doing and urged us to keep organized.

Mrs. H. M. Pahlas, Dubuque

### Greene County

Fifteen members of the Greene County Auxiliary paid dues. All of the doctor's wives are in charge of Red Cross surgical dressings in their respective towns.

All distributed posters on Doctors at War, and many have given talks on the Wagner Bill.

Dr. P. E. Lohr, husband of our president, is in service in the South Pacific.

Mrs. R. E. Parry, Scranton, Vice President

### Montgomery County

The Auxiliary to the Montgomery County Medical Society has a membership of fourteen. The primary purpose of our Auxiliary was to promote sociability among the doctors and their wives. The effect has been most pleasing to all of us.

In the past the doctors met with the Auxiliary for dinner. During the last year, due to wartime conditions and to the fact that the doctors frequently met in the morning, we have met at the hotel once a month for dinner and to transact any business we might have. Attendance at these meetings has been excellent.

It has been the wish of each member to continue as a social organization. We have, however, met each Tuesday afternoon to sew and mend for the hospital. We are 100 per cent in the purchase of



war bonds. A condition, which exists all over the country, faces us. Six of our members have husbands in the service. Some of us have small children with little or no help. Thus, it has been difficult to give time to the Red Cross as a group. Each member has given, to the best of her ability, time to the surgical dressing rooms as well as to knitting for the Red Cross.

One of our meetings was devoted to an open discussion of the Murray-Wagner Bill and Mrs. Reiley appeared before five different civic groups to present factual talks on the same bill.

In April of last year, it was our privilege to entertain Mrs. Mulsow of Cedar Rapids.

We are indeed proud to have Mrs. Reiley as state president. We wish to pay tribute to her ability and her untiring effort to make the past year a most successful one.

Mrs. H. C. Bastron, Red Oak

### Polk County

The Auxiliary to the Polk County Medical Society held four meetings during the year, two social and two educational. The first meeting was a dinner at the new Broadlawns Hospital. We had as our guest our state president and state secretary. There were 167 present. The second social meeting was in the nature of a benefit bridge party. As a result \$31.00 was turned over to the Nurses Loan Fund of the state organization. An additional \$30.00 was allowed from the treasury, making our total contribution to this fund \$61.00.

Our educational meetings were on the Wagner-Murray Bill and a book review.

We have continued the service at the USO, serving the first and third Wednesdays during the month. Twelve ladies were selected for the twelve months; each chairman secured her helpers and prepared and served the food. Between 80 and 200 service men and women were served each time.

Our service work was continued by sewing at the hospitals. We sewed at one of the hospitals each Thursday, rotating the four so that each received this service once a month. The ladies met in the morning, were served luncheon by the hospital and continued the work in the afternoon. Besides the service, we gained much in fellowship and became better acquainted in the smaller groups and with the hospital authorities. About 5,379 pieces were made.

The services of the ladies at the Home for the Aged were enlisted in hemming towels. The towels were carried back and forth by the committee.

Two groups of Camp Fire girls were sponsored by the committee and met Saturday mornings at two hospitals, stretching reclaimed gauze and making mouth swabs, etc. There were 14,900 articles made and the girls received merit awards for the number of hours spent.

Two days of the month were spent at the Red Cross rooms folding bandages. This service was

discontinued around the holidays but is now resumed. Many of our members are teaching nurses aide classes, Red Cross classes, short course nurses and mobile corps classes. Others are working in day nurseries and occupational therapy classes.

At Christmas time \$10.00 was donated to the Red Cross. A committee from the Auxiliary spent the \$35.00 donated by the Polk County Society in buying Christmas gifts for the service men and women in the hospitals. Forty gifts were purchased, attractively wrapped, and delivered to the Red Cross rooms for distribution.

*Hygeia* subscriptions through Polk County totaled 46. Forty-three subscriptions were given to the Des Moines schools and one each to the three USO rooms in Des Moines.

At the annual meeting in February, Mrs. H. I. McPherrin was elected president for 1944-45.

Mrs. J. A. Downing, Des Moines, President

### Pottawattamie County

The members of the Auxiliary to the Pottawattamie County Medical Society have devoted their time during the past year to helping in various civic and institutional projects.

We gave more than one hundred fifty service hours acting as hostesses at the local Recreation Center for service men. Individual members have worked long hours in the Red Cross rooms making surgical dressings, in the Canteen, and as nurses aides in the hospitals.

Aside from our regular business meeting each month, we gave one afternoon each week to the Mercy and Jennie Edmundson Hospitals. The work the Auxiliary did at the hospitals consisted of either sewing new material, mending or making supplies for the various departments.

Many of our members have joined their husbands who are away in some branch of military service, with the result that our active membership has been much smaller. However, we feel we have had a very active year and hope to regain our full membership in the near future.

Mrs. A. L. Jensen, Council Bluffs

### Worth County

The Worth County Auxiliary held its annual meeting at the Euchre and Cycle Club Room at the Hotel Hanford, Mason City, on March 5, 1944. A luncheon in honor of our state president, Mrs. W. S. Reiley, was held. Doctors' wives from Mitchell, Cerro Gordo, and Worth Counties were present. The Worth County attendance was 100 per cent. One long table with gold table linen and two center pieces of spring flowers made the occasion very festive. The women discussed Red Cross activities, including surgical dressings and other war work. A social meeting followed the luncheon.

The Worth County Auxiliary was saddened by the loss of Mrs. Hurd this year.

Mrs. S. S. Westly, Manly, President

## SOCIETY PROCEEDINGS

### Black Hawk County

Members of the Black Hawk County Medical Society met for their annual picnic at the Medical Lodge near Cedar Falls Thursday afternoon, June 29. Lieutenant Colonel Robert S. Shane, M.C., of the Selective Service Headquarters in Des Moines, was the guest speaker for the occasion.

### Butler County

Members of the Butler County Medical Society met at the Round Grove Golf and Country Club in Greene Monday evening, June 19, for a turkey dinner at which their wives and a few guests were also present. During the program which followed the dinner, Dr. Ray A. Fox of Charles City showed moving pictures of a trip to Alaska.

### Dallas-Guthrie Society

The regular July meeting of the Dallas-Guthrie Medical Society and the Woman's Auxiliary of the organization was held Thursday noon, July 20, in Woodward. A fried chicken luncheon was served at Harry's Cafe to the thirty doctors and their wives who were present for the meeting. Following luncheon the scientific program was conducted at the auditorium of the State Hospital. Clarence I. Thomas, M.D., of Guthrie Center discussed Fractures, and Olive Hart, psychologist at the State Hospital, presented a paper on A Definition of Feeble-mindedness.

### Hardin County

Members of the Hardin County Medical Society met at DeBaggio's Cafe in Eldora Friday, July 27. Following dinner at 6:30 p. m., Royal F. French, M.D., of Marshalltown discussed Foreign Bodies in the Trachea.

William E. Marsh, M.D., Secretary

### Linn County

Dr. Barclay J. Moon of Cedar Rapids has been installed as president of the Linn County Medical Society for the coming year. Dr. Charles S. Day, also of Cedar Rapids, was named president-elect. Other officers elected to serve the Society are Dr. Edward H. Files, vice president; Dr. Don S. Challed, secretary; and Dr. James R. Flynn, treasurer. All officers are of Cedar Rapids.

### Page County

A meeting of the Page County Medical Society was held Thursday evening, June 22, at the Clarinda Prisoner of War Camp. Following dinner, which

was the regular Army fare for that evening, an interesting scientific program was conducted by Major Bernard C. Burns, M.C., commanding officer of the hospital. He presented a film and lecture on Malaria; a talk on Mosquito Collection was presented by Lieutenant Robert P. Watkins, M.C.; Laboratory Procedure in Malaria Determination was discussed by Lieutenant Allen P. Storer, M.C.; and a talk on Treatment for Malaria was given by Captain Rudolph Unruh, M.C. A question and answer period was held following the talks, during which the officers answered the various questions on malaria. Many doctors in Southwestern Iowa attended this excellent meeting of the Page County Society.

### Polk County

A meeting of the Polk County Medical Society will be held Tuesday evening, September 19, in conjunction with members of the Iowa Lutheran Hospital Staff, who will be hosts on the occasion. Alfred W. Adson, M.D., of Rochester, Minnesota, will be the guest speaker of the evening.

### Scott County

The Scott County Medical Society held its "Pot-O-Gold" picnic Wednesday afternoon, July 19, at one o'clock at the Shorey Farm near Pleasant Valley.

### Tama County

Members of the Tama County Medical Society met Tuesday evening, July 4, at the home of Dr. Edson C. Knight in Garwin. Dinner was served at 6:30 p. m. and was followed by the usual business session.

### Woodbury County

A meeting of the Woodbury County Medical Society was held Thursday evening, June 29, at the Sioux City Air Base at the invitation of the officers of the Station Hospital. Dinner was served at 7:00 p. m. in the mess hall and was followed by the scientific program. Major Marcus A. Torrey, M.C., spoke on Aero-otitis and Aero-sinusitis; Captain Marvin P. Vanden Bosch, M.C., discussed Virus Pneumonia; and Captain John E. Kimball told of his Experiences as a Medical Officer in Iran.

Frank D. McCarthy, M.D., Secretary

### PERSONAL MENTION

Dr. Bernard B. Parker, who has been located in Centerville for the past eight years, has accepted a position on the surgical staff of the Remington-Rand



Hospital of the Sangamon Ordnance Plant and reports for duty August 1. Dr. and Mrs. Parker are closing their home in Centerville with the expectation of returning after the war.

Three Emmetburg physicians were speakers at the weekly Rotary Club luncheon of that city Tuesday, July 11, at the Kermore Hotel. Dr. Harold L. Breton, who directed the program, and Drs. Francis X. Cretzmeyer and Paul O. Nelson were the speakers. The doctors, who are all Rotarians, talked on the advance of medicine in the use of sulfa drugs and penicillin.

Dr. John O. Cook, who for several years has practiced in Madrid and for the past few years has been connected with the Woodward State Hospital, has moved to Brunswick, Georgia, where he will be on the staff of physicians of the Jones Construction Company of that city.

Dr. Daniel J. Glomset of Des Moines was the guest speaker of the Davenport Kiwanis Club at its luncheon meeting Thursday, June 29, at Hotel Blackhawk. Dr. Glomset's address included many interesting stories of scientific achievements accomplished in the field of medicine in the United States.

Dr. Isaac H. Odell of Des Moines has announced that he is retiring from the active practice of medicine August 1. He plans to make his home in Muscatine after his retirement.

Dr. Valentine J. Meyer has been appointed Assistant Superintendent of the Glenwood State School to succeed the late Dr. Edgar Christy. Dr. Meyer has been on the medical staff for several years.

Dr. Siegmund F. Singer of Ottumwa spoke before the Kiwanis Club of that city at its dinner meeting Monday evening, June 26, at Hotel Ottumwa. Dr. Singer talked on The War Against Cancer, comparing the war we are fighting abroad with the fight at home against cancer.

Dr. William F. Crew has moved to Wichita, Kansas, where he will continue the general practice of medicine, specializing in treatment of the eye, ear, nose and throat. For the past two years Dr. Crew has been practicing in Greenfield and prior to that time was located in Massena.

Dr. Leo J. Homan, who has been located in Oxford Junction for the past eighteen months, has announced that he is moving to Anamosa to take over the prac-

tice of Dr. Henry F. Dolan, who is moving to Cedar Rapids.

### MARRIAGE

Miss Blanche Calvert of Des Moines and Dr. William E. Sanders of Long Beach, California, formerly of Des Moines, were united in marriage Sunday, July 16, at the home of the bride's sister, Mrs. Earl M. Steer, in Pasadena, California. The couple will be at home at the Willmore Hotel in Long Beach, where Dr. Sanders has been practicing for the past year and a half.

### DEATH NOTICES

Christy, Edgar, of Glenwood, aged sixty-three, died suddenly July 5 of a heart attack. He was graduated in 1907 from the University of Nebraska College of Medicine, and at the time of his death was a life member of the Mills County and Iowa State Medical Societies.

Dakin, Channing Ellery, of Mason City, aged sixty-eight, died July 23 following a short illness. He was graduated in 1899 from the Bennett College of Eclectic Medicine and Surgery, Chicago, and at the time of his death was a life member of the Cerro Gordo County and Iowa State Medical Societies.

McNamara, Francis Patrick, of Dubuque, aged sixty, died July 2 of coronary thrombosis. He was graduated in 1918 from Harvard Medical School, and at the time of his death was a member of the Dubuque County and Iowa State Medical Societies. A more complete obituary will be found in the History of Medicine Section of this issue.

### IOWA PHYSICIANS RECEIVE AWARDS AT EXHIBIT OF AMERICAN PHYSICIANS ART ASSOCIATION

At the annual exhibit of the American Physicians Art Association during the recent session of the American Medical Association, the following Iowa physicians received awards:

Dr. Jeannette Dean-Throckmorton, Des Moines—On four items exhibited, Dr. Throckmorton received first prize on one quilt, and honorable mention on the other. She also received honorable mention on a hand-painted bowl.

Dr. Arthur W. Erskine, Cedar Rapids, received second prize on wood carving.

Dr. Harry R. Jenkinson, Iowa City, received second prize and honorable mention on color photography of wild flowers of Iowa.

The award for first and second prize was a silver cup and for honorable mention, a silver medal.

It is interesting and gratifying to note that the cultural attributes of three Iowa physicians received such distinguished recognition.

# HISTORY OF MEDICINE IN IOWA

*Edited by the Historical Committee*

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary*

DR. MURDOCH BANNISTER, Ottumwa

DR. JOHN T. MCCLINTOCK, Iowa City

DR. FRANK E. SAMPSON, Creston

## Francis Patrick McNamara, M.D.

1883-1944

### In Memoriam

Dr. Francis Patrick McNamara, past president of the Iowa State Medical Society and noted pathologist and bacteriologist of Finley Hospital, died at his home in Dubuque Sunday, July 2, 1944. He was sixty years of age. According to his physicians, the doctor "suffered a coronary thrombosis three weeks before his death. It developed into ventricular fibrillations with paroxysms of tachycardia but little pain. Quinidine failed to relieve the condition."

Dr. McNamara was primarily a teacher, one of the great medical teachers of pathology of the Middle West. The groundwork for this teaching lay through his constant and ceaseless autopsy work in Finley Hospital and for the city of Dubuque. It was his ambition to provide as close to 100 per cent autopsy records of those who died in the hospital as was humanly possible. Some years he actually attained this unheard-of goal through sheer persistence. All of the records were presented in the weekly clinicopathologic conferences of the hospital staff which he established. No time of day or night or inclement weather or his own comfort or health ever permitted him to shirk this duty.

For years he published monthly in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY the material presented before these hospital staff conferences. Accurate case histories and striking photographs of unusual autopsy material were generally incorporated in these articles. Without doubt their publication will prove in the future a rare reference library of research study and bibliographic reference for the profession at large, not limited to any classroom. He also established a pathologic museum and a medical library for the hospital. Many of his private ex-

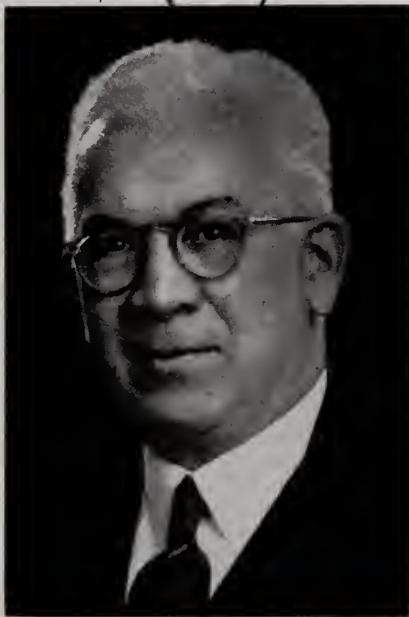
hibits of pathologic specimens were shown in the scientific convention exhibits of both the Iowa State Medical Society and the American Medical Association. As head of the hospital laboratory, his opinion was widely sought on material submitted for examination in puzzling cases.

Dr. McNamara was born in Fitchburg, Massachusetts, December 22, 1883, and was educated in Fitchburg High School and Harvard University. He was graduated in 1918 from Harvard Medical School. Preceding his medical courses, he had been employed as a pharmacist.

Following graduation, Dr. McNamara served as assistant and instructor in pathology in the Yale University School of Medicine, as well as pathologist for the New Haven Hospital. Coming west to Dubuque in 1921, he served as pathologist for Finley Hospital and as head of that hospital laboratory until his death. He also served, since 1932, as pathologist for Mercy Hospital in the same city and as consulting pathologist for the Decorah Hospital in Decorah, Iowa. He was

especially interested in the study of cancer and in recent years had been active on the state cancer committee, which published the Cancer Manual of the Iowa State Medical Society. In 1934-36, he served as Iowa representative of the American Society for the Control of Cancer, and at the time of his death was editor of the Bulletin of the Women's Field Army of the American Society for the Control of Cancer.

In 1933, Dr. McNamara was awarded the silver medal by the Committee on Awards of the Scientific Exhibit of the American Medical Association at the meeting in Milwaukee, Wisconsin, for his exhibit of pathologic specimens; and he was preparing his ex-





hibits for another session in Chicago this year when he was taken suddenly ill.

In state medical affairs Dr. McNamara held many positions of trust. He served as deputy councilor for the state medical society from 1928 to 1936 when he was chosen councilor, holding that position for three years. In 1940 he was elected president of the Iowa State Medical Society in recognition of his many services as a medical leader and author. He was a member of the American Board of Pathology, the American Society of Clinical Pathology, a fellow of the American Medical Association, American College of Physicians, and the Mississippi Valley Medical Society. In 1940 he was elected an honorary citizen of Boys Town, Nebraska. He was a former president of the Dubuque County Medical Society, and also served as president of the Interprofessional Society of the state.

In 1925 Dr. McNamara was married to Josephine R. Gregoire, a member of one of Dubuque's oldest pioneer families. He was a devout member of St. Raphael's Cathedral and also of the local lodge of Elks.

#### THE APPRECIATION OF COLLEAGUES

*"To know, to esteem, to love—and then to part  
Makes up life's tale to many a feeling heart."*

A great and good man has passed. He was always helpful in trying to maintain the high ideals of his profession.—*Felix A. Hennessy, Calmar*

Dr. McNamara worked on the cancer committee since its reorganization in 1935. A man of vision, but eminently practical, he steadfastly maintained that the committee could most effectively reduce the cancer death rate by promoting lay and professional education, and by ensuring that poverty is no bar to the relief of cancer patients.—*Arthur W. Erskine, Cedar Rapids*

It is difficult to express in words what the untimely death of Dr. McNamara means to the medical profession and the community in which he lived. In his second year in medical college he became interested in the changes which occurred in man's body due to illness; hence the reason for his selection of pathology. Dr. McNamara was a deductive thinker. He had a keen concept of histopathology, especially the structural and malignant changes which differentiate the nonmalignant from the malignant tumors.—*Frederick A. Hecker, Ottumwa*

During the more than score of years that I have known Dr. McNamara I have been constantly impressed with his enthusiasm and thoroughness in the work, always without regard to expense and effort, carrying professional problems to their logical conclusion. Such a man in his passing will be missed.—*John C. Hancock, Dubuque*

In the passing of Dr. F. P. McNamara the medical profession loses a great leader. He possessed a keen mind and a devout and reverent spirit. Into his profession he brought a background of broad training, exceptional skill as a pathologist, and his energy was remarkable.—*Harry A. Stribley, Dubuque*

For more than twenty years Dr. F. P. McNamara was known as an authority in the field of pathology. Very progressive in outlook, he was always actively engaged in the development and maintenance of the highest type of medicine among his associates in Dubuque and its vicinity.—*J. Carl Painter, Dubuque*

Dr. F. P. McNamara's mind was so eternally young and enterprising that when his body began to waver under the perpetual motion to which it was subjected, that self-same youth of mind would not slacken its pace. It continued unabated until death intervened.—*John A. Thorson, Dubuque*

By the death of Dr. Frank McNamara, Iowa has lost one of its outstanding pathologists and the JOURNAL, one of its most valued contributors. His unstinted devotion to the welfare of the State Society has been and will continue to be an inspiration.—*Ransom D. Bernard, Clarion*

Dr. McNamara's death is a real loss to scientific medicine. He was a conscientious worker, often doing more than was required of him, and by so doing received the unqualified respect of his friends and colleagues and made a firm and lasting imprint on his community and his friends.—*Oliver J. Fay, Des Moines*

My association with Dr. McNamara through the JOURNAL has extended over a long period of years. Long since we began to look forward to his monthly contribution to the JOURNAL pages and never once have we been disappointed in receiving material and always it was on a high order of scientific construction. Those of us connected with the JOURNAL will miss Dr. McNamara greatly. He was a frequent visitor in the central office and always a most welcome one. I am sure the medical profession throughout Iowa has also lost one of its most stalwart members.—*Lee F. Hill, Des Moines*

It was only natural that one who had contributed so much should in all good time have received the highest honors that the Iowa medical profession could bestow upon him. Simple, unostentatious, he knew pathology and how best to teach and draw conclusions from his findings. His cheery smile and hearty greeting will be sadly missed by all, but long remembered.

Henry G. Langworthy, M.D.

#### AN APPRECIATION

The untimely death of Dr. F. P. McNamara is mourned by a host of medical friends in Iowa and everywhere his work was known.

He came to Dubuque in 1921 largely at the invitation of Dr. H. B. Gratiot, a leading ophthalmologist and recognized as the founder and patron of the Finley Hospital Laboratory. The directorship of this laboratory was the inducement and opportunity that influenced Dr. McNamara to forego the attractions of teaching and research in two of the leading medical schools of the East. He brought to the service of this new hospital laboratory and to Iowa medicine a rare experience and leadership in the fields of bacteriology and pathology gained under the tutelage of such masters as Councilman and Mallory of Harvard and Winternitz of Yale.

If we were to single out any one outstanding contribution to the medicine of his period, it would be that he definitely integrated pathology as a fundamental part of the practice of medicine. He further established the clinical value of effective laboratory service in a one hundred bed hospital.

Dr. McNamara recognized the need of carefully recording his observations and publishing them. He

likewise stimulated his medical colleagues to make complete clinical studies, follow-up records, and necropsy studies as a form of continuous postgraduate study. The value of such studies was reflected in continuous improvement in diagnostic accuracy and therapeutic results.

In recent years we looked forward to each month's issue of the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY for the interesting Finley Hospital Clinicopathologic conferences by Dr. McNamara and the members of the hospital staff. In 1941 he published in book form the collected reprints and bibliography of the medical staff of Finley Hospital for the period 1927 to 1941. This included 135 articles on a great variety of clinicopathologic problems which had previously been published in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY and other leading medical journals.

His annual scientific exhibits at meetings of the Iowa State Medical Society and American Medical Association created unusual interest and won frequent certificates of merit and honorable mention.

Just eighteen years after coming into membership in the Iowa State Medical Society, he was named president-elect, which indicated the high place he had attained in the affection and regard of his fellow members. He prepared special addresses both as president-elect and as president, and the titles chosen, "Some Methods of Stimulating Medical Progress in Iowa," and "The Public's Interest in High Professional Standards," reflected his forward thinking and deep interest in the welfare of the medical profession and its future.

Soon after his term as president of the State Medical Society he was appointed by Governor Wilson to membership on the State Board of Health. Here again his stimulating leadership and understanding of Iowa medical conditions was of inestimable value in formulating the policies governing the extension of modern public health service to all parts of the state.

Of our departed friend and fellow physician, it may be truly said that he lived a life of human service in the omnipotence of his God and left to Iowa medicine a heritage of significant accomplishments toward the higher ideals of medical practice, the precept of a fine Christian gentleman, and one of the noblest souls of his time.

Walter L. Bierring, M.D.

Quoted below are the contents of a letter received by Dr. Bierring from Dr. George H. Smith, Professor and Head of the Department of Bacteriology and Immunology of Yale University School of Medicine, which depict the high esteem with which Dr. McNamara was regarded by those who knew him well:

"Your letter to me announcing the death of our good friend, Doctor McNamara, came to me as a shock; some way I have always thought of him as unchanging and, I guess, 'indestructible.' It is difficult for me to realize that this is not so.

"While my contacts with Mac over the last years have been all too few, I have never felt that he was very far away and I have taken pride in the fact that he, in some measure one of our men, was doing such a splendid job there with you. He was the type

of man whose loyalties never waver, and whose friendship does not lapse through mere distance and the passage of time.

"Mac came to us here at the Yale Medical School and the New Haven Hospital immediately upon the completion of his medical course at Harvard. I suppose he may have come to us because of the fact that during those war years his sister was with us as an instructor—and a very competent one, too—in our Division of Bacteriology. At all events, Mac came; and for the year 1918-19 he served as resident in pathology. The next year, 1919-20, he was assistant in pathology, and in 1920-21 he was instructor in pathology and bacteriology. Then we lost him to you.

"During his stay here he published several papers, and was co-author (with Drs. Winternitz and Wason) of the monograph entitled 'The Pathology of Influenza.' But it is not in relation to such appointments and accomplishments that I think of McNamara; it is Mac the person that remains in my mind.

"I think of him as a man of good nature, genial, friendly, enthusiastic, and cooperative in all things. Helpfulness, in spirit as well as in fact, seemed to motivate him in all of his contacts. Never was anyone more ready to roll up his sleeves and pitch in on what had to be done, whether it was his duty or not, just as long as he felt that his help would be of value. Those were trying days, everyone was working at maximum capacity, and I feel sure that a remnant of equanimity was maintained in large part through the atmosphere which Mac did so much to create. I can only hope that we were able to contribute something to him in return for all that he was able to do for us.

"I do not need to comment on McNamara's abilities in his chosen field; with those you are familiar. And I cannot say what I would like to say about Mac as a personal friend; such things cannot be said. But, my dear Doctor, please read between the lines, and I am sure that your own feelings will tell you just what I have left unsaid."

#### INTERNATIONAL COLLEGE OF SURGEONS MEETING

The Ninth Annual Assembly of the International College of Surgeons will be held October 3, 4 and 5, 1944, at the Benjamin Franklin Hotel in Philadelphia, Pennsylvania. The program will be devoted to war, rehabilitation and civilian surgery. Guest speakers will be eminent surgeons in government, military, and civilian practice who will present papers pertinent to surgery in their particular field of endeavor.

Among the activities planned are a tour of hospitals and attendance at clinics. More than fifty prominent surgeons and others engaged in the work of rehabilitation and occupational therapy will present twenty minute papers during the morning and afternoon sessions. There will be more than two hundred and fifty feet of panel space devoted to interesting and instructive scientific exhibits. A variety of motion pictures will be shown on craniocerebral surgery, bone and joint surgery, plastic surgery, as well as some new and original pictures dealing with medical entities.

The medical profession is invited to attend the Assembly and its sessions. Special arrangements have been made with hotels in Philadelphia to take care of visitors coming from distances. Information may be secured from Dr. Benjamin Shuster, Philadelphia, Pennsylvania.



# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES**—By George R. Hermann, M.D., professor of medicine, University of Texas, director of the cardiovascular service, John Sealy Hospital, consultant in vascular diseases, U. S. Marine Hospital. Third edition. The C. V. Mosby Company, St. Louis, 1944. Price, \$5.00.

**THE MANAGEMENT OF NEUROSYPHILIS**—By Bernhard Dattner, M.D., associate clinical professor of neurology, New York University Medical College. With collaboration of Evan W. Thomas, M.D., assistant professor of medicine and assistant professor of dermatology and syphilology, New York University Medical College; and Gertrude Wexler, M.D., instructor in dermatology and syphilology, New York University Medical College. Grune & Stratton, New York, 1944. Price, \$5.50.

**CLINICAL LECTURES ON THE GALLBLADDER AND BILE DUCTS**—By Samuel Weiss, M.D., clinical professor of gastroenterology, New York Polyclinic Medical School and Hospital; gastro-enterologist, Jewish Memorial Hospital, New York; consulting gastro-enterologist, Beth David Hospital, New York, Long Beach Hospital, Long Island, etc. The Year Book Publishers, Inc., Chicago, 1944. Price, \$5.50.

**SYNOPSIS OF NEUROPSYCHIATRY**—Lowell S. Selling, M.D., director, Psychopathic Clinic, Recorder's Court, Detroit, Michigan; associate attending neuropsychiatrist, Eloise Hospital; adjunct attending neuropsychiatrist, Harper Hospital. The C. V. Mosby Company, St. Louis, 1944. Price, \$5.00.

**RADIATION AND CLIMATIC THERAPY OF CHRONIC PULMONARY DISEASES**. With Special Reference to Natural and Artificial Heliotherapy, X-ray Therapy, and Climatic Therapy of Chronic Pulmonary Diseases and All Forms of Tuberculosis—Edited by Edgar Mayer, M.D., assistant professor of clinical medicine, Cornell University Medical College, New York City; attending physician New York and Memorial Hospitals; special pulmonary consultant, New York State Department of Labor. The Williams & Wilkins Company, Baltimore, 1944. Price, \$5.00.

**ALLERGY IN PRACTICE**—By Samuel M. Feinberg, M.D., associate professor of medicine and chief of the division of allergy, Northwestern University Medical School; president, American Association for the Study of Allergy, 1942-1943; with the collaboration of Oren C. Durham, chief botanist, Abbott Laboratories. The Year Book Publishers, Inc., Chicago, 1944. Price, \$8.00.

**FEMALE ENDOCRINOLOGY**—By Jacob Hoffman, M.D., demonstrator in gynecology, Jefferson Medical College; pathologist in gynecology, Jefferson Hospital; formerly research fellow in endocrinology and director of the Endocrine Clinic, Gynecological Department, Jefferson Hospital, Philadelphia. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

**HANDBOOK OF NUTRITION**, A Symposium prepared under the auspices of the Council on Foods and Nutrition of the American Medical Association. American Medical Association, Chicago, 1943. Price, \$2.50.

## BOOK REVIEWS

### HEALTH AND HYGIENE

#### A Comprehensive Study of Disease Prevention and Health Promotion

By Lloyd Ackerman, Ph.D., Western Reserve University, Cleveland, Ohio. Jaques Cattell Press, Lancaster, Pennsylvania, 1943. Price, \$5.00.

Public health workers and particularly health educators will find in this comprehensive treatise an excellent reference work. Its general reading by physicians will go far to promote better understanding of public health activities and cooperation in preventive medicine. But the book is intended for the general public and presumably to be used as a text in college hygiene. While engagingly readable in style, it would seem rather technical for readers without scientific training, although the author has made some attempt to define the more difficult terms used.

The information is generally accurate, although it might be expected that many readers whose public health experience has brought them face to face with the problem offered by typhoid diagnoses based on an agglutination test will not agree with such dicta as that the Widal test is an earlier and more reliable diagnostic measure than culture.

The completeness of the work is indicated by the inclusion of a chapter on cancer control. The same completeness, of course, demands some treatment of the subject of mental hygiene, but the devotion of a third of the book to an albeit interesting discussion of behavior and personality traits, the phenomena of reproduction, and sex and marriage hygiene seems disproportionate.

The rather large space devoted to depressants and stimulants, while more factual than most discussions, is still nostalgically reminiscent of the old school physiology with its depiction of "drunkard's stomach."

A notable and, in the light of the type of audience the book is certain to reach, an unfortunate omission is any mention of administrative medicine and community cooperation in public health.

The volume is illustrated, well indexed, contains adequate references to authoritative sources, and is on the whole a constructive contribution to the advance of public health.

E. G. Z.

### GASTRO-ENTEROLOGY

#### Volume II—Intestines and Peritoneum

By Henry L. Bockus, M.D., professor of gastro-enterology, University of Pennsylvania Graduate School of Medicine. W. B. Saunders Company, Philadelphia, 1944. Price, three volumes and separate desk index, \$35.00.

In the second volume of this three volume set, the author has limited himself to the problems of the small and large intestines and peritoneum. The fact that the book contains approximately 950 pages shows the detailed thoroughness with which he handles these subjects. The material of each chapter is outlined in a table of contents, and a more complete outline is presented at the beginning of each chapter. An adequate bibliography follows each chapter.

Considerable space is allotted to the anatomy, embryology, and physiology of these organs. Functional and organic problems are discussed in complete detail, and yet the material is readily available for quick reference. Diagrams and photographs are plentiful to illustrate more fully the problems under discussion.

This volume is a "must" for every doctor's office. Not only does it have easily accessible the answers to the practical problems of the general practitioner but also sufficient detail and theory to be of value to a specialist in this field.

G. E. M.

#### FUNDAMENTALS OF PSYCHIATRY

By Edward A. Strecker, M.D., professor of psychiatry and chairman of the department, Undergraduate School of Medicine, University of Pennsylvania; psychiatrist to the Pennsylvania Hospital; attending psychiatrist, Psychopathic Division, Philadelphia General Hospital; consultant to the Bureau of Medicine and Surgery, United States Navy; consultant to the Secretary of War, AAF. Second edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$3.00.

This is a very helpful little volume for quick reference. Its size scarcely does justice to its scientific contents. Busy physicians and medical students who wish some memory refreshment on modern psychiatry will find it useful because its subject matter is well systematized and modern, and its case references are well selected and instructive.

F. A. E.

#### SYNOPSIS OF TROPICAL MEDICINE

By Sir Philip Manson-Bahr, M.D., senior physician to the Hospital for Tropical Diseases, Royal Albert Dock and Tilbury Hospitals; consulting physician in tropical diseases to the Dreadnought Seaman's Hospital, London; director, division of clinical tropical medicine, London School of Hygiene and Tropical Medicine, consulting physician to the Colonial Office and Crown Agents for the Colonies; consultant in tropical medicine to the Admiralty and to the Royal Air Force. The Williams & Wilkins Company, Baltimore, 1943. Price, \$2.50.

The fact that many thousands of men are now serving in the armed forces in tropical areas all over the world renders study of and familiarity with the great variety of tropical diseases a vital consideration. Manson-Bahr's pocket-sized book of 224 pages, compiled by this internationally recognized authority, contains more concise information pertaining to illnesses prevalent in the Orient than any volume of similar size that has come to attention in recent years.

Diseases in the sixteen chapters, with specific mention of but a small number, are classified under the following heads.

- I. Protozoal: Malaria; Amebiasis; (seven other diseases).
- II. Spirochetal: Relapsing Fevers; Infectious Jaundice; (four others).
- III. Rickettsial: Rocky Mountain Spotted Fever-Typhus group (total of nine).
- IV. Bacterial: Brucellosis; Bacillary Dysenteries; (eleven other diseases).
- V. Virus Diseases: Yellow Fever, Dengue, Psittacosis; Encephalitis.
- VI. Fungous: Blastomycosis; Ringworm.
- VII. Nutritional: Beriberi; Scurvy; Pellagra, Sprue.
- VIII. Climatic: Heat stroke; sun stroke.
- IX. Miscellaneous Group: Example, Tropical Ulcer.
- X. Vegetable Poisons: Cannabis indica; Ivy; Mushroom.
- XI. Animal Poisons: Spiders; Tick Paralysis.
- XII. Metazoal: Scabies; Myiasis.
- XIII. Metazoal: Trematodes (Flukes).
- XIV. Metazoal: Nematodes (Round worms).
- XV. Metazoal: Cestodes (Tapeworms).
- XVI. Laboratory Methods: Blood staining; Examination of Feces and Urine.

Each disease is presented in outline form, with titles in clear, bold-faced type. The several varieties of Malaria receive detailed consideration under Epidemiology; Etiology; Life History of Parasites, Pathology; Clinical Pathology; Clinical Features; Sequelae; Diagnosis; Treatment; Prophylaxis.

Five full-page plates illustrate malaria parasites, intermediary hosts of some of the disease agents, human intestinal protozoa and eggs of the more common helminths.

C. F. J.

#### INDUSTRIAL OPHTHALMOLOGY

By Hedwig S. Kuhn, M.D., Hammond, Indiana. The C. V. Mosby Company, St. Louis, 1944. Price, \$6.50.

Since the first session of the Council on Industrial Health of the American Medical Association in 1929, through to the last meeting February 1944, it has been gratifying to note the increased interest the profession has taken in industrial health. This was evidenced by an attendance of 750 at the last meeting. Dr. Kuhn's new book on Industrial Ophthalmology also reflects that interest.

Due to the fact that we soon discovered we were very short of industrial physicians, after the rapid expansion of industry owing to the war effort, Dr. Kuhn's book is indeed timely. It is a field that previously has not been dealt with as comprehensively. Although there have been numerous articles written on industrial ophthalmology, this is the first attempt to coordinate the essential information which is so important from an industrial standpoint. Therefore, this book is recommended to any ophthalmologist, whether he is doing full time, part time, or compensation ophthalmology.

J. E. R.



### THE 1943 YEAR BOOK OF PEDIATRICS

Edited by Isaac A. Abt, M.D., professor of pediatrics, Northwestern University Medical School; attending physician, Passavant Hospital; consulting physician, Children's Memorial Hospital and St. Luke's Hospital, Chicago; with the collaboration of Arthur F. Abt, M.D., associate professor of pediatrics, Northwestern University Medical School; associate attending pediatrician, Michael Reese Hospital; attending pediatrician, Chicago Maternity Center; attending physician, Spaulding School for Crippled Children and La Rabida Jackson Park Sanatorium, Chicago. The Year Book Publishers, Chicago, 1944. Price, \$3.00.

A review of this book really seems unnecessary since by this time it is doubtful if there are any physicians in the country who are not acquainted with the value of the entire series of Year Books. The Pediatrics Year Book is edited by Dr. Isaac Abt and his son, Arthur, which in itself ensures painstaking and discriminating selections from the year's pediatric publications, since the high standing of these men in the pediatric field is well recognized. In the 415 pages of the volume the authors present condensations of articles published on a great variety of pediatric subjects. The advantage to the busy pediatrician or general practitioner in reading this book is that all important articles from the world's pediatric literature are gathered together in one place. This it ensures familiarity with all recent developments. Furthermore, the reader is enabled to determine quickly whether any of the condensations are of sufficient interest to him to investigate further by obtaining the original article.

In the reviewer's opinion, this is one of the "must" books for every physician's library.

L. F. H.

### SMALL COMMUNITY HOSPITALS

By Henry J. Southmayd, Director, Division of Rural Hospitals, The Commonwealth Fund; and Geddes Smith, Associate, The Commonwealth Fund. The Commonwealth Fund, New York, 1944. Price, \$2.00.

The Commonwealth Fund has helped to build thirteen rural hospitals. This program was undertaken on the principle that "if 50,000 to 100,000 people will use a single hospital placed at the natural center of a homogeneous trading area, they can have about as good a hospital as the same number of people in a single city could expect to have, and a far better one—both in physical equipment and in professional services—than any single small town and its immediate neighborhood are likely to be able to support for its own use."

The type of community hospital described in this book is a "middle-of-the-road merger of the charity institution and the private facility. It sells service when it can to patients who are willing and able to

pay, and gives service, at community expense, to those who cannot pay." In the experience of the Commonwealth Fund, the community has been required to pay about a quarter of the overall cost.

The authors present a well organized and lucid discussion of the problems, policies, benefits, and difficulties involved in the creation and development of a community hospital. It is a pragmatic account of nearly twenty years of research and experience in the field of rural medicine. The difficulties are presented with the same detailed care as are the benefits. The book answers such questions as: What communities should have hospitals? How large should a community hospital be? How can the community hospital be financed? What does the board of directors contribute? What is the relationship of the medical staff? What are the qualifications and functions of the superintendent? What diagnostic services should be provided? What should be the relationships between the hospital and community?

While the conservative and honest approach to the difficulties, as well as the values, inherent in such an undertaking may convince some readers that the problem of providing good rural medical service has not yet been solved, the Commonwealth Fund is to be congratulated for the scientific manner in which it has approached this problem and presented its findings.

Medical men and others interested in the improvement of rural medical service will find the 182 pages of this volume filled with material of value and interest.

C. R. H.

### THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY

By W. A. Newman Dorland, M.D., Lieutenant Colonel, M.R.C., U. S. Army; member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association; editor of "American Pocket Medical Dictionary." With the collaboration of E. C. L. Miller, M.D., Medical College of Virginia. Twentieth edition, revised and enlarged. W. B. Saunders Company, Philadelphia, 1944. Price, plain, \$7.00; thumb-indexed, \$7.50.

This new and revised edition of the well-known American Illustrated Medical Dictionary has been excellently prepared. Its 1,668 pages incorporate the newest additions and terms in the various fields of medicine, with special attention having been devoted to the vocabulary of war medicine and surgery.

This work has been accepted as a standard for medical spelling and pronunciation by most medical publications since the first edition made its appearance in 1900. Since that time it has undergone twenty revisions and has been kept entirely up to date.

It is our belief that this dictionary warrants our unreserved recommendation, and that it is a book which should be an important part of every physician's office.

# The JOURNAL of the Iowa State Medical Society

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DES MOINES, IOWA, SEPTEMBER, 1944

No. 9

## DEVELOPMENTS IN MILITARY NEUROPSYCHIATRY\*

LIEUTENANT COLONEL MALCOLM J.  
FARRELL, M.C., A.U.S., Washington, D. C.†

It is an unusual pleasure to be invited to discuss, before your Society, some important developments in wartime neuropsychiatry in the Army and to offer a few suggestions as to how the social and medical professions and the home front may cope with some of the inevitable casualties upon their return to their homes. There can be little doubt that the disorders in this field constitute a serious and challenging problem.

The strategy of mechanized warfare requires intelligence and emotional stability, as well as physical strength. The frightfulness and destructiveness of weapons have increased almost beyond belief. Our enemies have utilized a complex program of propaganda and frightfulness, carefully devised, for its devastating effect upon the minds of their opponents, both civilian and military. This is truly psychologic warfare with its obvious hazards to mental stability. It is logical, therefore, that in the present war, mental health is fully as important as the physical. Let us consider, in the brief time available, some of the specific neuropsychiatric problems and how the Army copes with them.

The numerous hazards of rapid and intensive training, with a strong likelihood of service in a strange foreign country, involve a difficult adjustment from domestic to military life. From a life of comparative ease, which is elastic enough to make allowances for his shortcomings, the new soldier is faced with the prospects of separation from home, regimentation, lack of freedom and privacy, and a lack of feminine companionship. As he reaches the combat zone, there are added extreme fatigue, danger of death and mutilation, exposure to extreme heat or cold, disease, isola-

tion, confusion and hunger. The fear of being a coward, or losing self-control, as well as the responsibility for the lives of others, all play a rôle. He is placed in an inelastic environment where his shortcomings and weaknesses stand out in bold relief.

Ordinarily, neuropsychiatric casualties are thought to occur only in weaklings or in individuals with a personality defect. This is not necessarily true, especially in the total combat situation. Information at hand indicates that a significant proportion of these casualties are occurring in soldiers who give no history suggesting predisposition. Every individual, no matter how well he is integrated, has his breaking point. Under the extremes of stress, fatigue, and the noise and sights of modern combat, the most stable individual may reach his breaking point. Particularly in combat, then, we must look for the presence of neuropsychiatric disorders in normal individuals as well as in those predisposed.

We who are struggling with this problem believe that insufficient understanding regarding the war also is an important factor. It is difficult at times for many of our people to realize fully the threat to our national security. The war is being fought in remote regions. Our homeland has not tasted the frightfulness of war which has been the lot of many of our Allies. There is much accumulated evidence to indicate that the attitude of the people from which the armed forces are drawn reflects directly upon the armed forces themselves. Soldiers drawn from communities where morale is high are better prepared for the hardships of war, and neuropsychiatric casualties are fewer in combat areas where morale is high and training has been extensive. The British recognized early in this war that one of the most common causes of nervous breakdowns in soldiers and seamen is the breaking up of families left behind. All these factors and the effect of bombing and invasion threats upon home areas have further emphasized the intimate relationship between civilian and military groups. In the last war, it was not the Ger-

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†Deputy Director, Neuropsychiatry Division, Office of The Surgeon General.



man military machine that cracked first; it was the home front. Mail from home is most eagerly sought by our soldiers in foreign lands. Nothing boosts morale more than a letter from loved ones and yet, all too often, the receipt of a letter has been the precipitating factor in a break. Letters from relatives should be encouraging and full of news in which the soldier is interested. Well meaning but poorly informed relatives can do irreparable damage by telling the soldier how much they miss him, giving details of how badly affairs are going at home, concentrating upon an illness of some loved one, or the shortage of gas or other luxury. The soldier then is very sensitive to happenings in civilian life.

There is reason to believe that soldiers who know the principle for which they fight and are properly trained to fight are less likely to suffer nervous breakdown than those who have no understanding of the purpose for which they are fighting. When the morale and leadership are of a high order, the neuropsychiatric casualties have been comparatively few. The principles of morale and preventive psychiatry are considered identical. The importance of morale in the conditioning of a fighting force and its direct relationship to the incidence of neuropsychiatric casualties is recognized. It is most appropriate, therefore, that the service which has the responsibility for morale activities has been coordinated with the Neuropsychiatry Division of the Surgeon General's Office which is most closely concerned with the mental reactions of soldiers. As a result, both Divisions are cooperating in an extensive program.

Much is being done both in the way of prevention and treatment of neuropsychiatric casualties. Because of the limited number of adequately trained specialists, careful planning was necessary to place strategically neuropsychiatrists at Army levels where prevention and early treatment could be most effective. Accordingly, medical officers with specialized training have been placed at most induction stations where civilian specialists are not available. Neuropsychiatrists have been assigned to replacement training centers, evacuation hospitals, and station and general hospitals both in this country and overseas. A neuropsychiatrist has been assigned to each division, where he is available to conduct screening and treatment from early training to combat.

#### SELECTION

The hazards of modern warfare emphasize the need for careful elimination of those personality types and disorders which will become liabilities not only during training but during active combat. Owing to the necessity of a brief examination and

the inability of examiners to spot all potential casualties, some unstable individuals will be inducted. There is as yet no test sufficiently well developed to detect all psychopaths and potential neurotics. Mistakes at the induction station may be reflected at the front in a type of disturbance which may not only risk the life of the individual but the lives of his comrades as well. There is evidence to show that, in spite of its shortcomings, induction screening is preventing a larger number of susceptible individuals from entering the service than during the last war.

Selectees who are psychoneurotic constitute the largest group of rejectees. It must be understood that this diagnosis does not constitute mental disease, as commonly conceived. These individuals will not stand up under the rigors of military life. Soldiering is an occupation and, like other specialized occupations or professions, some are not suited to it. However, most of these can and should continue to serve in civilian capacities. Many of the psychoneurotics are among the large numbers of chronic complainers with elusive physical symptoms who crowd physicians' offices but seldom become hospitalized for nervous disorders. Induction should be considered a process of selection of those fitted for military service only. Therefore, rejection, if justified, should carry no stigma.

Until recently, neuropsychiatrists were severely handicapped in the appraisal of the selectee by the lack of a suitable medical, social and educational history. Only in a few states were adequate records available showing whether a selectee had been a patient in a mental hospital. Fortunately, on 18 October 1943, the Selective Service System adopted history taking as a nationwide policy. This has been recognized by leaders in neuropsychiatry as a most forward step.

#### PREVENTION

The early period of training, both at the replacement training center and in tactical units, has been found to constitute a serious hurdle. Commonly, the incidence of mental disorders, particularly the psychoneuroses, reaches the highest peak about the third or fourth week of training. At this time the pressure of training and adaptation shows its most striking effect. In order to detect these casualties before they become severe and to aid in the adjustment of the more stable individuals who are manifesting minor emotional difficulties, mental hygiene units have been established at replacement training centers, under the supervision of specially selected and qualified neuropsychiatrists. These neuropsychiatrists, with the aid of psychologists and psychiatric social workers, give prompt and early help to men who display symptoms of mal-

adjustment. This is also a function of the division neuropsychiatrist. Men are encouraged to consult the neuropsychiatrist voluntarily, and officers have been instructed to watch for those who might be developing neurotic behavior and to refer them. The neuropsychiatrist has been used frequently to assist those concerned with training in the principles of mental hygiene so that the new soldier may be able to adapt himself more readily to military life and thus overcome his natural fears and resentments. One excellent preventive measure has been a series of mental hygiene lectures for both officers and enlisted men. These have been given at certain centers and recently have been adapted for general use throughout the Army. These lectures cover such subjects as fear, resentments, and homesickness, pointing out that they are normal reactions and specifically offer suggestions as to how they can be diverted. In addition, officers are being given some understanding of mental mechanisms so that they not only may recognize their own difficulties in adjustment but also can interpret the behavior of their soldiers and increase their own value as leaders.

#### TREATMENT

The incidence of neuropsychiatric casualties is a problem during early training and in combat. In the interests of conservation of manpower, the Army has developed a new program by which it is hoped that large numbers of psychoneurotics will be salvaged for some type of duty. It is well known that long periods of hospitalization tend to fix the psychoneurotic's attention upon himself and that he may acquire new symptoms. Therefore, a plan has been developed whereby these individuals will be actually hospitalized for the shortest possible time and then treated by individual and group methods in barracks under a military, rather than under a hospital, atmosphere. Those who show promise of being able to perform some useful service will be transferred to special retraining units where they will be trained in military occupations according to the capabilities of the individual. The officers and instructors are carefully selected, and neuropsychiatrists, psychologists, and personnel and classification officers will take an active part.

In combat zones, it has been found that when neuropsychiatric casualties are properly recognized and treated at forward areas, up to 80 per cent can be returned successfully to combat duty. Here the division neuropsychiatrist has important responsibilities. He has been with the unit during its entire training. He has indoctrinated officers, especially medical officers, with an understanding of neurotic symptoms and the proper approach to

them. He is at a tremendous advantage when his unit goes into combat and is able to give treatment to those minor casualties within the sound of guns and to evacuate those more severe casualties to evacuation hospitals. He must recognize those who are desirous of escaping duty and avoid indiscriminate evacuation of those who can be treated adequately in forward areas, since the prognosis is, as a rule, far better if they are treated immediately. On the other hand, delay in evacuating individuals for which specialized treatment in a base area is necessary may prove disastrous to the patient and harmful to the morale of the unit. Usually the neuropsychiatrist functions at the clearing station where sedatives, rest, and reassurance are his chief aids.

For those individuals who cannot be treated at the clearing station, evacuation is necessary. The majority of these can be treated in the evacuation hospital located only a few miles from the front. The policy here is to treat those who require five days' treatment or less. All others are treated in hospitals removed from the front. At this level, casualties receive rest, warm baths, explanations for their symptoms, strong psychotherapeutic reassurance, and suggestions, and are then sent to bed for three or four days. They are given phenobarbital routinely and additional sodium amytal, if necessary, so that most of their time is spent sleeping. All patients are required to be up for their meals and to keep their own bed and immediate ward area in order. These steps are taken deliberately to maintain a sense of discipline and to discharge any idea of serious or physical illness. All therapeutic discussion is carried out in the open ward with the idea of repetitive mass treatment effect. Intravenous barbiturate medication to aid catharsis and suggestion may be used in selected cases. Sedation is discontinued for a full day before discharge, and during this time the decision is made whether to return the patient for further duty or to evacuate him to the communications zone. No patient is held in the evacuation hospital over five days. As a result of prompt treatment, the vast majority of patients return to full duty.

#### TYPES OF NEUROPSYCHIATRIC CASUALTIES

It may be stated that there are no new mental disturbances in the present war, although various disorders, particularly the combat neuroses, have been given such innocuous titles as "combat fatigue," "pilot fatigue," "flying fatigue," "exhaustion," and others. The psychoneuroses occur in the following classifications, in order of their incidence: (1) anxiety states; (2) hysteria; and (3) reactive depressions. The anxiety states far out-



number all other types. Many of these have been labeled "exhaustion" in preference to "anxiety state" upon their return from the front lines in order that the recoverable nature of their symptoms might be emphasized, with increased likelihood of return to duty. Otherwise, symptoms become fixed in anticipation of a rapid evacuation to the rear.

The factor of fatigue hastens the breakdown in men with and without mental disorders. Even the strongest has his breaking point under the stress of modern warfare, and, therefore, screening is not the complete answer to casualties. However, the predisposed poorly integrated personality usually responds unfavorably to the stresses of both training and combat periods and to all therapy. Greater effort must be made to detect and eliminate such types at induction and during early training.

In one theater of operations it was noted that the psychoneurotic battle reactions diminished with increased battle experience. Of the psychoses, schizophrenia constitutes the largest number, although the incidence is relatively small. Many of these, in both the training and combat periods, have a rapid onset and the acute symptoms, frequently of the catatonic type, subside after a comparatively short period of hospitalization.

The constitutional psychopath has presented one of the difficult problems. Owing to his good intelligence he is often difficult to detect at induction and even after some time spent in the training period. He has frequently been urged into the Army by well-meaning but ill-advised parents, physicians, judges and others, with the hope that the Army will "make a man of him." The Army is not a school, jail, or hospital. Its prime duty is to win the war in the shortest possible time and to act as a reform school will not aid in that achievement.

Considerable attention has been given to the study of effects of blast and resulting trauma. Some casualties with or without visible head injury, which were previously considered psychoneurotic or psychotic due to combat, were found to have evidence of brain damage. Careful consideration, therefore, is being given to all neuropsychiatric casualties so that these injuries may not be confused with purely functional conditions.

Contrary to belief in some quarters, true malingering has not been an extensive problem. Where it has occurred, it is frequently indicative of some underlying personality defect or mental disorder which renders the individual unsuitable for military service.

The problem of homosexuality likewise has not created serious difficulties. Army directives have provided a more enlightened and humane method

of disposition. Homosexuals who have not indulged in this practice may be discharged because of traits of character not desirable in the military service. Those who have been discovered in the act may now be handled by administrative discharges if the facts so warrant, rather than being tried before a general court-martial and imprisoned if found guilty. This represents an adaptation of a more enlightened civilian attitude to military procedures.

#### RETURN TO CIVILIAN LIFE

Those who cannot perform some type of duty must be discharged, together with those who have been eliminated early in training. These individuals and those who have been rejected at induction are your responsibility, at least in part. Most of them do not require hospitalization but they do need care and sympathetic understanding. Here is a challenge to the home communities, business and to our medical professions. It will not be sufficient to say "They are only nervous; there is nothing wrong with them." Such an attitude will merely drive them to become victims of quacks and charlatans. A high proportion of these individuals can be and must be salvaged for useful citizenship. It will be necessary to coordinate all agencies which can help and, as in many other instances, our professions will have to take the lead. Other professions do not have the intimate knowledge of human reactions. Self-confidence must be restored and added to. Business also has a large measure of responsibility and must make every effort not to have them be total losses. Industry must capitalize on their assets to the end that they become useful members of society and not drains on their country. Self-confidence and assurance, through employment, can be gained even if they are unsuited to military life. They should be wanted by industry, where they are badly needed. I cannot emphasize too strongly the fact that a man's unfitness for the abnormal, special strains and stresses of war and soldiering does not necessarily have any bearing upon his competence in many civilian occupations.

It is, therefore, the immediate, patriotic and humane responsibility of our medical professions to do all in their power to encourage the acceptance, without prejudice, of those returned from the military forces for mental or emotional difficulties. They must be given every chance and encouraged to make good in industry. It is often remarkable how quickly even some of the most upset individuals return to their former life and efficiency in their productive work once the pressures that broke them can be removed.

Thus, important responsibilities are now placed

on the shoulders of our professions. Time does not permit details as to how this can be done. A few suggestions, however, can be briefly covered. The community physician may often require the advice of a neuropsychiatrist, but it is obvious that he himself will be called upon to assume a major part of the job. The social worker, too, will have to assume an important share. Since there are insufficient numbers of qualified neuropsychiatrists, it will be necessary for the medical man and the social worker to educate themselves in the handling of this type of case. Social workers without psychiatric training must acquire a working knowledge of psychiatric social case work.

Our professions have another important responsibility in the field of public education. We are all painfully aware of the average person's conception of the word "psychoneurosis." All too often this term is inseparable, in the lay mind, from mental disease or weakness and implies, to the average citizen, that it is a stigma to the patient, to his family, and to his potential employer, which is difficult to overcome. To combat this, a program of public education is necessary, which concentrates upon the suggestion made earlier: that these people merely are temperamentally not fitted to the profession of soldiering.

Medical clinics should be established at strategic locations where these individuals can receive adequate treatment on an outpatient basis. State and local community social agencies will have to be organized, if none exist, and closely coordinated, to the end that carefully planned programs should be directed toward the maximum utilization of the emotionally unfit in industry and defense activities. It should be demonstrated to the individuals who cannot serve in the armed forces that they, too, can contribute greatly to the war effort, thus conserving the nation's manpower to the maximum degree.

Some may ask: Why does not the Army completely rehabilitate these casualties? In attempting to answer this question, I wish to offer only two of several important reasons for your consideration. It must be emphasized that the function of the Medical Department is "to build and maintain an efficient fighting force." All treatment provided must be directed toward that goal, and the treatment of large numbers of ineffectives who cannot be expected to return to some type of military duty will not aid in its achievement. Secondly, it is not until the veteran is discharged from the armed forces and has returned to his home community that he will be faced with the real problem of readjustment. Although much has been accomplished and further plans are being made by Federal and State agencies to prepare him for a

useful life, the fact remains that the veteran must make the transition himself when he returns to his home. The readjustment will, no doubt, be difficult for many and these will require the aid of community resources.

While we of the medical profession who are serving in uniform are accumulating a large body of experience and knowledge which we hope to apply to the benefit of the nation's peacetime health, all of us must also do some straight thinking in the field of mental hygiene. Although no one is built to withstand anything and everything—each of us has his breaking point, some earlier than others—nevertheless, more realistic thinking during the past two decades could have prevented many of our young men's maladjustments now. We have failed to imbue too many of them with the fervors and convictions that would enable them to withstand the rigors and unpleasantness of military life. We have stressed the rights and safety of the individual, with little or no thought for the group. Now we are, almost overnight, trying to submerge the individual in mass teamwork, engaged in the greatest group activity in history! Small wonder, then, that some of the players in the grim game cannot make the grade. We in our medical professions must accept our share of the responsibility for the development and maintenance in our home communities of a healthy attitude toward the fundamental issues at stake in this global war. We are paying now for twenty years of pacifistic and wishful thinking. Let us not make that mistake again.

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## PRIMARY ATYPICAL PNEUMONIA\*

### Report of Forty-seven Cases

DON W. CHAPMAN, M.D., Iowa City†

Pneumonia, at the present time, ranks as the sixth most common cause of death. In the past few years, a new type of pneumonia, so-called atypical pneumonia, atypical bronchopneumonia, virus pneumonia, interstitial pneumonitis, or what many authorities (including the Army) prefer to designate as primary atypical pneumonia, etiology unknown,<sup>1</sup> has attracted attention. It has become important because of its relatively benign course and few physical signs in contrast to the stormy course of lobar pneumonia which formerly often terminated in death.

It is a well-known fact that the etiology<sup>2, 3, 4, 5, 6</sup> of atypical pneumonia has not been completely worked out. Most attempts to isolate a filtrable virus in the blood, secretions, or the lungs have

\*From the Department of Internal Medicine, University of Iowa College of Medicine.

†Now in Houston, Texas.



failed. Many workers have isolated viruses which closely resemble so-called atypical pneumonia virus. These viruses are known to be the causative factors of lymphogranuloma venereum, psittacosis, and lymphocytic choriomeningitis. Even many of the patients with virus pneumonia have given positive Frei tests. This work suggests at least the possibility that the virus arose from the parent strain. This strain probably resides in animals or birds<sup>7, 8</sup> and subsequently becomes diversified by passage and adaptive residence in different hosts and tissues. Other infections characterized by atypical pneumonia which, clinically, closely resemble virus pneumonia are Q fever, coccidiosis, and toxoplasmosis, but the agents which cause them are not viruses, and seem unlikely to have any relation to the widespread infection called atypical pneumonia.

Although there have been few deaths, autopsies were obtained on two patients at the Jefferson Medical Hospital, one at Columbia,<sup>9</sup> and two at Johns Hopkins Hospital,<sup>10</sup> and a few other reports have appeared in the literature. The inflammatory reaction in the lungs, histologically, is interstitial in character; the alveoli contain loose exudate which consists of mononuclear cells, erythrocytes, and

coagulated serum without bacteria; the alveolar epithelium is swollen. Polymorphonuclear neutrophils usually fill the bronchioles and rarely are seen in the alveoli. However, a similar reaction is evoked by hemophilus pertussis, Pasteurella tularensis, hemophilus influenza, toxoplasma toxins, and irritative chemicals.

Clinically, atypical pneumonia appears in two forms. Atypical pneumonia may occur concomitantly in epidemics of mild or severe disease of the upper respiratory tract. However, many are isolated, sporadic, nonseasonal cases of mild to severe degree which occur chiefly in patients under thirty years of age. The clinical course consists of an insidious, febrile onset, with a progressively regular rise and fall of temperature, without diurnal regularity, reaching at times 103 to 105 degrees, after the first day or two. The fever is accompanied by progressive malaise, weakness, often severe headache, profuse diaphoresis, and occasionally severe pain in the chest. The latter, however, is rare because the disease tends to limit itself more to the hilar regions of the lung and the pleura does not become involved. The chest pain is due to coughing. Shaking chills are rare, but a chilly sensation is common and may be as-

DATA FROM 47 CASES OF

No.	Seasonal Incidence	Sex	Age	Incu- bation Period	Admis- sion Temp. (F.)	W. B. C.	Lung Rales	X-Ray Findings	Sputum Type Organism	Sputum Color
1	July	Female	20	3 Days	102.6	3,200	8th Day	Right Base	Negative	White
2	January	Male	18	3 "	104.0	5,700	Negative	Left Base	Negative	White
3	January	Male	24	8 "	102.0	8,250	Right Base	Right Cardiophrenic	B. Hem. Strept.	Yellow
4	October	Female	21	6 "	104.0	7,500	Right Base	Right Base	B. Hem. Strept.	Yellowish Green
5	May	Male	20	5 "	100.6	6,500	Negative	Right Base	Negative	Yellow
6	September	Male	20	5 "	102.8	9,200	Negative	Right Base	Negative	White
7	February	Male	19	4 "	103.4	5,200	Bilateral	Right Base	Negative	Mucous & Blood Streak
8	January	Male	20	4 "	104.0	8,000	Right Base	Right Cardiophrenic		White
9	February	Male	18	7 "	104.2	9,200	Negative	Bilateral Hilar	B. Hem. Strept.	White
10	February	Female	20	7 "	98.6	6,800	Left Base	Left Base		White
11	March	Female	21	4 "	103.2	9,850	Negative	Left Base		White
12	March	Male	24	3 "	102.8	10,450	9th Day	Right Hilar	B. Hem. Strept.	White
13	April	Male	25	7 "	103.4	9,600	Negative	Left Base		White
14	June	Male	18	11 "	102.0	9,850	Left Base	Left Base	B. Hem. Strept.	White
15	July	Male	18		100.0	6,000	Negative	Left Base		Thick Yellow
16	June	Male	28	13 "	103.2	15,000	Right Base	Right Base		Yellow
17	October	Female	29	3 "	98.6	6,900	Negative	Left Hilar		White
18	September	Male	18	14 "	100.8	10,650	Negative	Left Base		White
19	September	Female	21	7 "	103.4	8,450	Right Base	Right Base		White
20	November	Male	21	4 "	103.8	5,250	Negative	Right Base		White
21	November	Male	27	3 "	103.0	7,000	Negative	Right Upper Lung		White
22	October	Female	23	4 "	101.8	6,350	Negative	Right Upper Lung		White
23	October	Male	22	4 "	103.4	6,450	Negative	Right Base	B. Hem. Strept.	White
24	September	Female	15	3 "	102.4	10,750	Negative	Both Bases		White
25	August	Male	20	3 "	100.4	6,400	Negative	Left Base		White
26	September	Female	35	2 "	103.0	6,800	Negative	Left Upper Lung		White
27	September	Female	26	3 "	103.2	8,000	3rd Day	Apex	B. Hem. Strept.	Yellow
28	August	Female	26	2 "	103.0	9,200	6th Day	Rt. Upper & Middle		White
29	March	Male	25	4 "	101.4	6,500	3rd Day	Left Base	B. Hem. Strept.	White
30	September	Female	18	3 "	100.2	6,850	Left Apex	Left Apex		White
31	September	Female	17	6 "	99.6	9,950	Left Base	Left Base		White
32	August	Male	24	5 "	102.2	4,900	Negative	Right Base		Thick Yellow
33	September	Male	21	5 "	103.0	9,450	Left Base	Left Base		White
34	September	Male	31	7 "	101.6	7,800	Right Base	Right Base		White
35	September	Male	42	4 "	105.2	6,250	Left Base	Left Base	Negative	Yellow & Blood
36	September	Female	19	7 "	100.6	12,250	Hilar Region	Bilateral Hilar	B. Hem. Strept.	White
37	October	Female	21	10 "	102.6	8,900	Left Base	Left Base		White
38	October	Male	22	4 "	101.0	9,100	3rd Day	Left Base		White
39	June	Female	19	2 "	103.2	6,450	Right Base	Both Bases	Negative	White
40	October	Female	19	4 "	100.0	6,150	Negative	Right Base		White
41	December	Female	17	2 "	105.0	6,400	Negative	Left Base	Negative	White
42	April	Male	29	3 "	102.6	8,900	Negative	Left Base	Negative	White
43	September	Male	34	14 "	102.2	15,600	Negative	Left Base		Yellow
44	October	Female	19	5 "	101.0	8,000	Right Base	Right Upper Lobe		White
45	November	Male	21	2 "	103.2	8,500	5th Day	Left Base		White
46	September	Female	26	4 "	103.8	8,200	Right Apex	Right Apex	Negative	Yellow
47	January	Male	22	5 "	102.4	7,600	Right Base	Right Base	Negative	White

sociated with diaphoresis. There is a relative bradycardia. On the third and fourth days, cough, usually unproductive, develops. Commonly there are no significant or localized physical signs up to this time, and frequently not for several days. The slowly developing, crescendo-type course lasts ten to twelve days. Decrudescence by lysis usually occurs, but in a few cases there is a migration of signs and recrudescence of severity. Occasionally, the disease is accompanied by meningeal symptoms, constipation, or abdominal distention. Early in the course of the disease, the leukocyte count is relatively low; that is, 10,000 or less in about 80 per cent of the cases. Characteristically in the later stages of the disease, however, the white count rises to 14,000 or 16,000.

The physical signs are conspicuous by their absence. In many cases for the first four or five days no chest abnormalities whatsoever are present. In about 70 per cent of the cases, after the first three days of the disease, fine or medium moist râles make their appearance in the involved areas. It has been our experience that these râles often shift from one location to another in one lung, and also to the opposite side, without any definite roentgenologic evidence of new involve-

ment. The respiratory rate usually runs between twenty and thirty per minute. In only 10 per cent of the cases is impaired resonance found, and, in a similar number, bronchovesicular breath sounds are heard. A few authors report splenomegaly in some of their cases.

The complications of the disease are relatively few. There are a few reported cases of empyema, but no cases of bronchiectasis or unresolved pneumonia. Recently, Dr. Cooper<sup>11</sup> demonstrated a few cases of atypical pneumonia complicated by empyema and lung abscess. Two cases of meningomyelitis<sup>12</sup> have been reported. One of these patients died, and encephalitis was also demonstrated post mortem. In addition, Kneeland and Smetana<sup>9</sup> reported that some patients with atypical pneumonia had shown fibrinous pericarditis, migrating peri-arthritis, jaundice, and erythematous skin eruptions. The average hospital stay in many cases was prolonged by weakness, a persistent cough, râles, and relatively slow resolution of the pneumonic processes. In a few cases, maxillary sinusitis, otitis media, and peritonsillar abscesses occurred, but these were thought to be secondary to the upper respiratory tract infection.

During the year 1943, at the University Hos-

PRIMARY ATYPICAL PNEUMONIA

No.	Admission Pulse Rate Per Min.	Vomit- ing	Duration of Fever	Length of Hospitali- zation	Cyanosis	Cough	Headache	Marked Diaphoresis	Chest Pain	Incidental Findings	Admission Respirations Per Min.
1	110	0	8 Days	15 Days	0	+	Frontal	0	No	0	22
2	110	0	8 "	17 "	0	+	Frontal	+	No	0	26
3	110	0	6 "	17 "	0	+	Generalized	+	No	0	26
4	100	0	6 "	14 "	0	+	Generalized	+	Right	0	23
5	70	0	8 "	21 "	0	+	Generalized	+	Right	0	20
6	90	0	4 "	13 "	0	+	Frontal	0	Tightness	0	22
7	110	0	4 "	12 "	0	+	Frontal	+	No	0	20
8	128	0	9 "	11 "	0	+	Frontal	0	No	0	22
9	100	0	4 "	11 "	0	+	Frontal	0	No	0	20
10	70	0	0 "	9 "	0	+	Frontal	+	Left	0	24
11	130	0	11 "	24 "	0	+	Frontal	+	No	0	22
12	110	0	7 "	15 "	0	+	No	0	No	0	20
13	100	+	4 "	8 "	0	+	No	+	No	Herpes labialis	18
14	88	+	8 "	17 "	0	+	No	0	No	0	22
15	80	0	5 "	28 "	0	+	No	+	No	0	20
16	96	0	5 "	10 "	0	+	No	0	Right	0	20
17	80	+	0 "	10 "	0	+	Generalized	+	Bilateral	0	20
18	80	+	3 "	6 "	0	+	Occipital	0	No	0	29
19	100	0	6 "	16 "	0	+	Frontal	+	No	0	20
20	110	+	2 "	9 "	0	+	No	0	No	0	24
21	100	0	11 "	16 "	0	+	Frontal	0	No	0	24
22	98	+	8 "	23 "	0	+	No	+	Right	Urticaria	26
23	104	0	16 "	28 "	0	+	No	0	No	0	24
24	110	0	7 "	10 "	+	+	Frontal	+	No	Left Otitis Media	34 later 52
25	90	0	6 "	12 "	0	+	Frontal	+	Anterior	0	18
26	98	0	4 "	16 "	0	+	No	+	Right	0	28
27	90	0	5 "	16 "	+	+	Frontal	+	No	0	28
28	114	0	14 "	36 "	+	+	Frontal	+	No	0	28
29	100	0	6 "	12 "	0	+	No	+	No	Eustachian Salpingitis	24
30	106	0	7 "	20 "	0	+	Frontal	+	No	0	24
31	72	0	4 "	11 "	0	+	Frontal	0	No	Eustachian Salpingitis	20
32	88	0	4 "	12 "	0	+	No	0	No	0	20
33	100	0	14 "	30 "	0	+	No	0	Bilateral	0	18
34	94	0	4 "	13 "	0	+	Frontal	+	No	0	20
35	90	0	15 "	28 "	0	+	Frontal	+	No	0	24
36	70	0	5 "	20 "	0	+	Occipital	+	No	0	20
37	114	0	2 "	7 "	0	+	Frontal	+	No	0	28
38	100	0	4 "	9 "	0	+	Frontal	+	No	0	24
39	140	0	15 "	27 "	+	+	Occipital	+	No	Right Otitis Media	40
40	112	0	4 "	7 "	0	+	Frontal	+	Tightness	0	20
41	120	0	9 "	14 "	0	+	No	0	Anterior	0	29
42	90	0	5 "	11 "	0	+	Frontal	+	No	0	20
43	84	0	6 "	19 "	0	+	Generalized	+	Anterior	0	20
44	100	0	11 "	20 "	0	+	Generalized	+	No	0	24
45	110	0	11 "	18 "	0	+	Frontal	0	No	0	23
46	100	+	6 "	14 "	+	+	Frontal	+	Right Apex	0	28
47	86	0	5 "	14 "	0	+	Frontal	+	No	0	22



pitals in Iowa City, we saw 47 cases of atypical pneumonia. Most of them occurred in young people, students attending the University. The cases fell mostly in two groups: the mild ones and the severe ones. In our series, as in many others,<sup>9</sup> the disease seems to be readily transmissible; two sisters had it during the same month, and four members of the same sorority had the disease during September and October of 1943. The highest incidence was during the fall and winter months, with September leading all others. Many of these patients received roentgen therapy, the results of which were equivocal.

The accompanying table portrays data from 47 cases of atypical pneumonia.

As in so many diseases, rest in bed alone seems to be the best treatment. This, along with supportive measures with emphasis on adequate nursing care, a high fluid and relatively high carbohydrate intake, codeine for the cough, and oxygen when the disease is severe with cyanosis and dyspnea, constitutes the treatment. In 1939, Reimann used sulfanilamide, but believed that it was of no benefit. A few writers have felt that, in the type of case in which there is recrudescence after ten to twelve days, it may be worth while to use the sulfonamides to reduce the secondary invaders. Some writers believe it is probably better to try sulfadiazine for thirty-six to forty-eight hours if blood cell counts and roentgenograms are not available, and if there is no apparent benefit, then stop them. If the patient is very ill, a transfusion of either whole blood or plasma from a convalescent donor may reverse the trend of the disease and shorten the convalescence. The neutralizing effect of convalescent serum was demonstrated by Weir and Horsfall<sup>13</sup> in their experiments with the mungoose. Roentgen treatment of atypical pneumonia is still in the experimental stage, and so far the results are equivocal.

Atypical pneumonia is differentiated from lobar pneumonia in part, at least, as follows: An abrupt onset occurs with lobar pneumonia, in contrast with the slow onset of atypical pneumonia; an intermittent fever occurs with atypical pneumonia, rather than a continuous fever; mild leukocytosis and a small rise in the polymorphonuclear neutrophil count are more characteristic of atypical pneumonia; profuse diaphoresis is more common in atypical pneumonia; the respiratory rate is not as high in atypical pneumonia as in lobar pneumonia; there is much less sputum and no prune juice sputum in atypical pneumonia; usually there is less prostration with atypical pneumonia; one cannot recover pneumococci from the sputum in atypical pneumonia; and, finally, the roentgenographic appearance, with its hilar or central dis-

tribution, is suggestive of atypical pneumonia. This is a most helpful adjunct to diagnosis.

Influenza may also be confused with atypical pneumonia. The incubation period of influenza is one to four days, in contrast to one to two weeks with atypical pneumonia. With influenza there is usually an abrupt onset, repeated chills, a loose cough, often bloody sputum, a remittent type of fever, and frequently more severe dyspnea, with employment of the auxiliary muscles of respiration.

In differential diagnosis we must also include bronchopneumonia, which most characteristically occurs in very young and elderly persons, in contrast to the adolescents and young adults who more commonly develop atypical pneumonia. Bronchopneumonia more often follows other diseases, such as diphtheria, measles, whooping cough, or is the terminal stage of many severe infections. The leukocyte count is usually elevated in bronchopneumonia, as contrasted with the normal or low leukocyte count in atypical pneumonia. Finally, the roentgenographic appearance is very different in the two conditions. Pulmonary infarction may be differentiated from atypical pneumonia by the sudden, severe chest pain, abrupt rise in temperature, grossly bloody sputum, and the presence of a contributing etiologic factor, such as heart disease or pelvic thrombophlebitis. Again, the roentgenogram is helpful in differentiating the two diseases.

The prognosis of atypical pneumonia is excellent; only seven deaths have been reported. We have had over a hundred cases of atypical pneumonia in the past three years at the University Hospitals, and in that time we have had no deaths. Of the 141 cases of pneumonia reported from Mercy Hospital in Iowa City<sup>14</sup> this past year, forty were bronchopneumonia, with three deaths; eight were so-called hypostatic pneumonia, with no deaths; sixty were lobar pneumonia, with four deaths; and thirty-three were the so-called atypical pneumonia, with no deaths.

#### REFERENCES

1. Official statement: Primary atypical pneumonia, etiology unknown (prepared for Surgeon General of Army by Director of Commission on Pneumonia). War. Med., ii:330-333 (March) 1942.
2. Reimann, H. A., Havens, W. P., and Price, A. H.: Etiology of atypical ("virus") pneumonias with brief résumé of recent discoveries. Arch. Int. Med., lxx:513-522 (October) 1942.
3. Dyer, R. E., Topping, N. H., and Bengtson, I. A.: Institutional outbreak of pneumonitis; isolation and identification of causative agent. Public Health Rep., lv:1945-1954 (October 25) 1940.
4. McCordock, H. A., and Muckenfuss, R. S.: Similarity of virus pneumonia in animals to epidemic influenza and interstitial broncho-pneumonia in man. Am. Jour. Path., ix:221-252 (March) 1933.
5. Pinkerton, H., and Swank, R. L.: Recovery of virus morphologically identical with psittacosis from thiamin-deficient pigeons. Proc. Soc. Exper. Biol. & Med., xlv:704-706 (November) 1940.
6. Stokes, J., Jr., Kenney, A. S., and Shaw, D. R.: New filterable agent associated with respiratory infections. Tr. Coll. of Physicians, Philadelphia, vi:329, 1938-39.
7. Meyer, K. F., Eddie, B., and Yanamura, H. Y.: Ornithosis

(psittacosis) in pigeons and its relation to human pneumonitis. *Proc. Soc. Exper. Biol. & Med.*, xlix:609-615 (April) 1942.

8. Baker, J. A.: Virus obtained from pneumonia of cats and its possible relation to cause of atypical pneumonia in man. *Science*, xcvi:475-476 (November 20) 1942.

9. Kneeland, Y., Jr., and Smetana, H. F.: Current bronchopneumonia of unusual character and undetermined etiology. *Bull. Johns Hopkins Hosp.*, lxxvii:229-267 (October) 1940.

10. Longcope, W. T.: Bronchopneumonia of unknown etiology (variety X); report of 32 cases with 2 deaths. *Bull. Johns Hopkins Hosp.*, lxxvii:268-305 (October) 1940.

11. Personal Communication.

12. Reimann, H. A.: Acute infection of respiratory tract with atypical pneumonia; disease entity probably caused by filterable virus. *Jour. Am. Med. Assn.*, cxi:2377-2384 (December 24) 1938.

13. Weir, J. M., and Horsfall, F. L., Jr.: Recovery from patients with acute pneumonitis of virus causing pneumonia in mongoose. *Jour. Exper. Med.*, lxxii:595-610 (November) 1940.

14. Personal Communication with Dr. Scanlon, Iowa City, Iowa.

## ROENTGEN ASPECT OF ATYPICAL OR VIRUS PNEUMONIA\*

RUSSELL W. BERNHARD, M.D., Iowa City†

While its manifestation in the chest film aids greatly in establishing the diagnosis, the roentgenographic picture of virus pneumonia is sufficiently variable to stimulate interest in the subject. Nevertheless, its place in the diagnosis of this disease is more important than in the classical pneumococcal lobar pneumonia. This type of pneumonia must be distinguished from other disease processes occurring in the chest and probably the most difficult differential diagnosis roentgenographically is from ordinary bronchopneumonia. Although the history, physical findings, and age of the patient may be helpful, the roentgen aspect may be almost indistinguishable. I think I can demonstrate that frequently, from a roentgenographic point of view, the disease is so atypical that it does not simulate ordinary bronchopneumonia at all. Here the differential diagnosis from other disease processes becomes apparent.

Dr. Sante<sup>1</sup> speaks of bronchopneumonia as being a pneumonic process characterized by multiple small areas of infiltrate, clustering about the bronchi, the result of direct extension. They are soft in appearance, showing feathery edges and never appear discrete or clear cut. They tend to coalesce, to form irregular areas of consolidation, and there is pronounced increase in the bronchial markings.

Major Bowen<sup>2</sup> working at Tripler General Hospital in Honolulu saw a great deal of virus pneumonia while working there during the last decade. He states, "Virus pneumonia only involves portions of the lobe, usually basal, although it has been seen in the upper lobes and involving more than one lobe without increase in symptoms. The infiltrate extends outward from the hilus well into the parenchyma, occasionally reaching the periphery. The roentgen appearance is that of a

confluent, mottled fan or rounded area, usually of homogeneous moderate density in the central portion with borders fading into normal lung. It has the appearance of an exudative alveolar infiltrate and is usually more localized and of more even density than bronchopneumonia of childhood or that which complicates adult disease. The usual picture of bronchopneumonia is scattered mottling not confined to one lobe or sharply localized."

From our very brief experience it is our belief that this description is quite adequate, although it obviously, like any definitive discussion, is not all-inclusive. A few cases are presented which might serve to illustrate this disease process as we see it in its different stages and manifestations. There is one type of case which we see more commonly and this might be regarded as the more typical type of virus pneumonia. Other cases present an entirely different picture which probably can be explained in part on the stage of the disease when the first chest film is made, but in my opinion, not entirely on this. These more unusual cases, if one clings to one terminology, then become atypical virus pneumonias.

It is not our purpose in this short discussion to correlate closely the film findings with the clinical course of the disease. However, we believe these cases do tend to illustrate the progress of the pneumonic process in the typical and the more atypical cases of virus pneumonia. It should be kept in mind that no x-ray evidence may be discernible in the chest film during the first thirty-six to forty-eight hours of the disease.

### CASE REPORT I

*History:* D. W., a medical student twenty-five years of age, had a cold for four days with generalized aching and weakness for three days. Two days before admission, he had chilly sensations and felt feverish. These symptoms con-



Fig. a. Routine film.

\*Presented before the Johnson County Medical Society at its meeting in Iowa City April 7, 1943.

†Former resident in Radiology, University Hospitals, Iowa City; now in San Francisco, California.



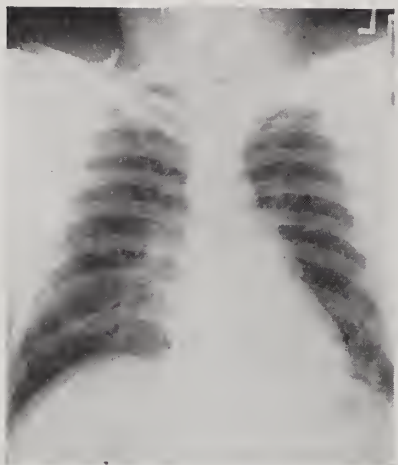


Fig. b. Admission film.

tinued until admission, at which time he had a slight productive cough. There was no chest pain.

*Physical Examination:* The chest examination was essentially negative. The temperature was 101.2 degrees and respirations 24. Chest examination two days later revealed moist râles in the left base and the patient still had fever.

*Laboratory Report:* *Bacillus hemolytic streptococci* were found in the sputum. It was not possible to type pneumococci by any method.

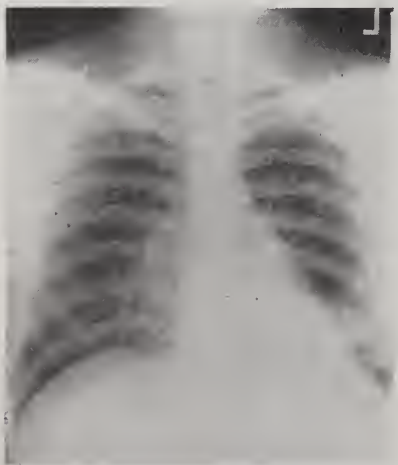


Fig. c. One day later.

*Discussion:* A routine chest film (Fig. a), from which a diagnosis of a healthy chest was made five months before the present illness, served as a basis for comparison. The admission chest film showed suggestive infiltration in the left base. A film taken one day later (Fig. c) showed definite infiltration at the left base. At this time moist râles were heard in this area. With symptomatic treatment he convalesced uneventfully. Six days later another chest film (Fig. d) revealed resolu-

tion of the process at the left base with only two patches of linear atelectasis remaining. The patient left the hospital clinically well and no other examinations were made.

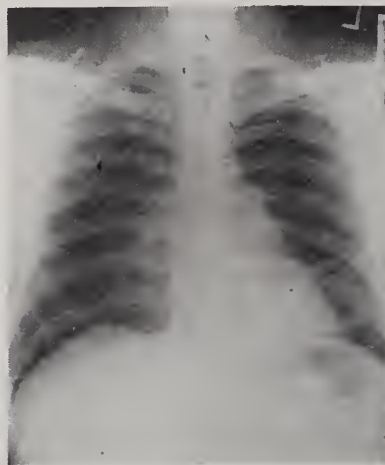


Fig. d. Six days later.

#### CASE REPORT II

*History:* J. H., a male student nineteen years of age, was in good health until the day before admission when he developed malaise and felt faint. He was examined at the Student Health Clinic and his temperature was 102 degrees. The next day he had two chills and vomited once. His temperature rose to 103 degrees and he was admitted to the hospital. There was no cough.

*Physical Examination:* There were moist râles in the right lung base and some bronchovesicular breathing in this area. There was no dullness. The temperature was 104 degrees and respirations 24 on admission.

*Laboratory Report:* Two blood cultures were

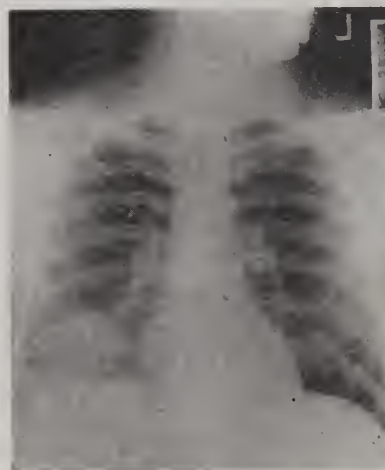


Fig. a. Admission film.

negative. No sputum was available for examination.

*Discussion:* A chest film taken on admission to the hospital (Fig. a) revealed a rounded area of infiltration having a homogeneous moderate density at the right lung base. On his third hospital day the patient's temperature rose to 106.6 degrees, although his chest film (Fig. b) revealed essentially the same findings as those seen on the admission examination. Sulfadiazine was given with no effect. The last film taken four days later

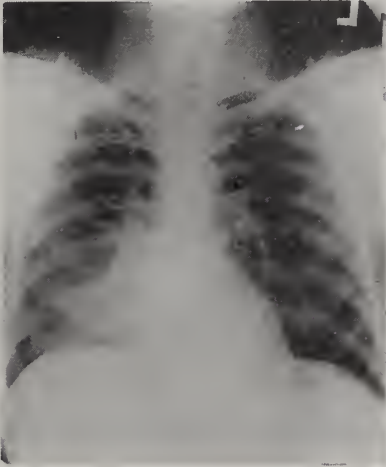


Fig. b. Two days later.

showed considerable resolution of the process, although there was significant infiltrate still present. After this last examination he convalesced rapidly and was discharged clinically well. Unfortunately no more chest films were ordered. It is the opinion of many clinicians that patients should not be discharged until a progress chest examination shows complete clearing with return to normal roentgenographically.



Fig. c. Four days later.

#### CASE REPORT III

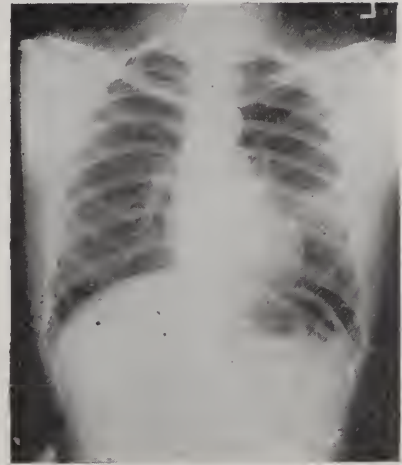


Fig. a. Admission film.

*History:* J. S., a female student twenty years of age, had a mild upper respiratory infection for five days prior to admission. When admitted, she complained of anterior chest pain, malaise, and headache. Shortly thereafter she developed a non-productive cough which persisted. Diaphoresis was marked.

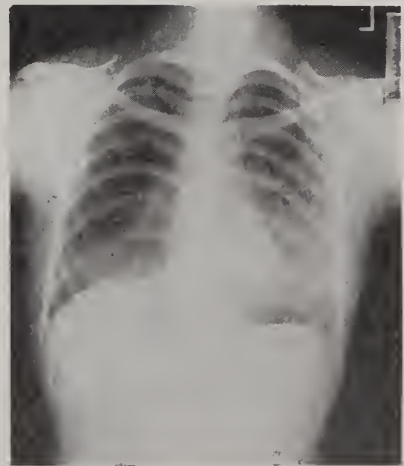


Fig. b. Seven days later.

*Physical Examination:* The chest was essentially negative on admission. The temperature was 102 degrees and respirations 24. She later developed intermittent râles.

*Laboratory Report:* Bacillus hemolytic streptococci were not found in the sputum. Pneumococci could not be found by any method.

*Discussion:* The admission chest film (Fig. a) revealed an infiltration of rather homogeneous moderate density involving the midportion of the left lung field. On symptomatic treatment the





Fig. c. Nine days later.

patient improved clinically but râles persisted in the affected area. A progress chest film (Fig. b) taken seven days after the admission film showed a more diffuse, not as homogeneous, infiltration involving the lower half of the left lung field. A chest film (Fig. c) was taken nine days later when the patient was essentially well clinically. The involvement was the same in type and extent as was elicited on the admission chest film. The last film taken just before the patient left the hospital (Fig. d) showed some minimal infiltration. No further progress films were taken. As in the previous case, this patient probably should have been detained until her chest film was completely clear.

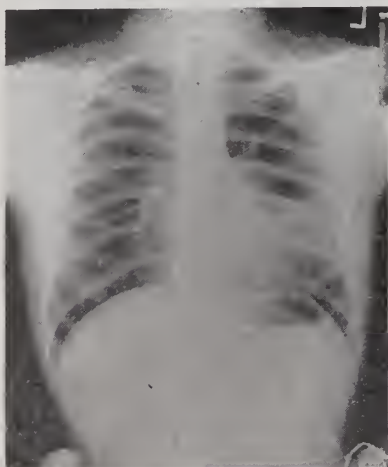


Fig. d. Four days later.

#### CASE REPORT IV

*History:* E. C., a male student twenty-three years of age, was well until four days before admission when suddenly he experienced chilly sensations and perspired profusely. That evening

he developed a cough which persisted. While at school the next day, he was bothered with a headache and considerable malaise. There was no rusty sputum.

*Physical Examination:* Chest examination was essentially negative. Temperature was 102 degrees and respirations 22 on admission.

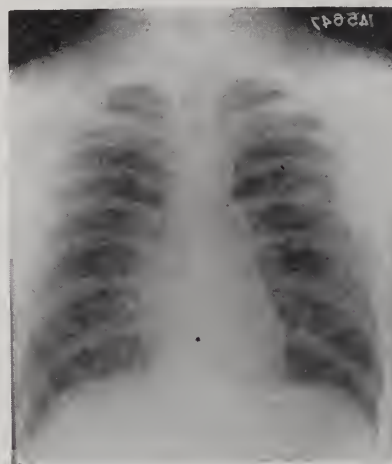


Fig. a. Routine film.

*Laboratory Report:* Two throat cultures were negative for *Bacillus hemolytic streptococci*. His cough was nonproductive; therefore gastric washes were examined and were negative for the tubercle bacilli by smear. A guinea pig was inoculated which later proved to be negative.

*Discussion:* A routine chest film (Fig. a), from which a diagnosis of a healthy chest was made in 1940, was used as a basis for comparison. The chest examination taken on admission for the present illness in October 1942 (Fig. b) showed parenchymatous infiltration in the apex of the left lung extending superiorly from the left hilum and



Fig. b. Admission film.



Fig. c. Twelve days later.

just lateral to the aortic arch. In addition some spotty infiltration was seen in the second and third left intercostal spaces anteriorly.

The second night in the hospital the patient's temperature rose to 105 degrees. At this time there were no significant chest findings, but examination of the throat showed inflammation of the tonsillar fossae and pharynx. Throat cultures made at this time revealed *Bacillus hemolytic streptococci*. The patient gradually improved and was only moderately ill for about seven days.

Another chest film (Fig. c) taken twelve days after the admission examination revealed some attenuation of the principal infiltration in the left apex, but in addition there was a diffuse mottling throughout both lung fields which was more marked on the left with more pronounced infiltration in the second and third left intercostal spaces, anteriorly. The general mottling was not unlike that seen in miliary tuberculosis, while the infiltration in the second and third intercostal spaces was very much like the parenchymatous infiltration



Fig. d. Five days later.

seen in adult apical tuberculosis. By this time the patient had been essentially well for five days, being up and about the ward, and the medical resident had planned to discharge him the next day.

The last chest film (Fig. d) was made five days later and showed an essentially healthy chest with no evidence of any abnormal parenchymatous infiltration. In the interim the clinical course was uneventful and the patient was discharged after this examination.

#### CASE REPORT V

*History:* G. S., a female student nineteen years of age, was in good health until the day before admission when she developed fever, aching, malaise, and an occipital headache. At the same time she started to cough and noted some soreness beneath the sternum. The cough was non-productive. The night before admission she was

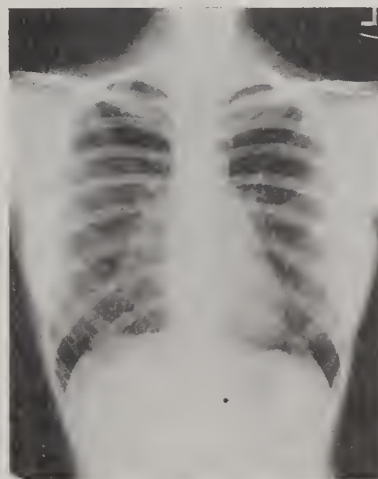


Fig. a. Admission film.

aware of chilly sensations but had no shaking chill. On the day of admission all of the same symptoms were present in an aggravated form and when she was examined at the Student Health Clinic her temperature was 101 degrees.

*Physical Examination:* The patient appeared feverish and acutely ill. Except for a few crackling râles at the right lung base, the chest was essentially clear to percussion and auscultation.

*Laboratory Report:* Skin test for brucellosis was negative. Agglutinations for typhoid and paratyphoid were negative. Pneumococci could not be typed by any method. Throat cultures were negative for *Bacillus hemolytic streptococci*.

*Discussion:* A chest film taken at the time of the patient's admission to the hospital (Fig. a) showed rather prominent peribronchial markings in the right base extending inferiorly from a very prominent right hilum. However, it was not be-



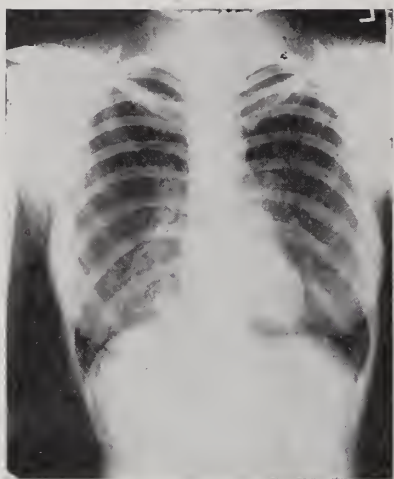


Fig. b. Three days later.

lieved that a roentgenographic diagnosis of a specific disease could be made from this single examination. A progress film taken three days later (Fig. b) revealed infiltrate in the right cardiophrenic angle which tended to confirm the presumptive clinical diagnosis of virus pneumonia. At this point her fever ranged from 98.6 to 103 degrees and she was bothered with a right otitis media. The administration of sulfathiazole was begun and was discontinued after two days, in which time the ear trouble subsided.

Her temperature continued to spike daily to 103 or 103.6 degrees and two days later, since the patient appeared toxic, another chest film was made (Fig. c). This showed marked increase in the infiltrate at the right base and some early infiltration of the left base. Fine crackling râles could be heard at both bases.

A film taken three days later (Fig. d) showed a rather diffuse process involving both bases. At

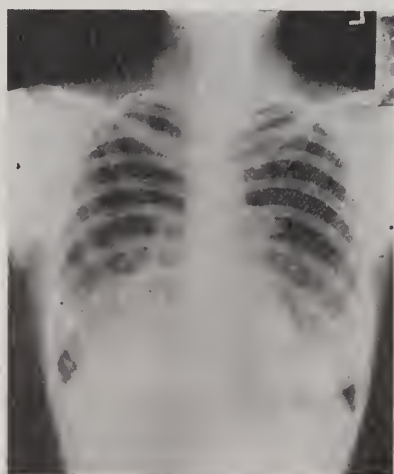


Fig. c. Two days later.

this time her temperature was spiking to 104 or 105 degrees daily, and fine crackling râles were present at both bases as well as dullness and decreased breath sounds just to the right of the vertebral column, posteriorly.



Fig. d. Three days later.

Two days later, ten days after admission to the hospital, the patient was started on roentgen therapy in desperation because she was extremely toxic and somewhat dyspneic requiring oxygen therapy. She was given 100 r through a 20 x 20 port to the anterior chest using 200 K.V. and Thoraeus filtration (H.V.L. equal to 1.95 mm. Cu.). The next day she was lucid and much improved clinically, although her temperature spiked to 103 degrees and a chest film showed no essen-



Fig. e. Twelve days later.

tial change from the previous examination. She was given another 100 roentgen units to the chest using the same factors as described previously. This was repeated the following day because the

patient continued to manifest clinical improvement. The next day she was much much better clinically and her temperature had leveled off so that we discontinued roentgen therapy.

This is the first and only case of virus pneumonia we have treated with x-ray therapy. While we make no claim for this type of treatment at this time, it is interesting that this patient got such a quick response after being one of our sickest patients. Oppenheimer<sup>3</sup> recently reported a group of patients with virus pneumonia which he treated with roentgen therapy with gratifying results in a majority of them.

The last chest film (Fig. e) was made nine days later and showed essentially complete clearing. At this time there were no chest findings and her temperature had not been over 100 degrees for seven days. She was discharged six days later, clinically well, after her temperature had been normal for four days.

#### CASE REPORT VI

*History:* J. R., a male student seventeen years of age, was well until six days before admission, at which time he developed malaise and generalized aching. His temperature that evening was 104.8 degrees. He remained in bed the next three days, feeling about the same except for some headache. He had no chest pain, chills, sweats, cough, or joint trouble. Three days before admission he developed a cough productive of a small amount of mucoid sputum. During the afternoon he had three or four shaking chills and his temperature went up to between 104 and 106 degrees. Because of nausea and vomiting at this time, the administration of sulfathiazole was stopped and the nausea and vomiting abated. There was no hemoptysis or chest pain at any time. Since his

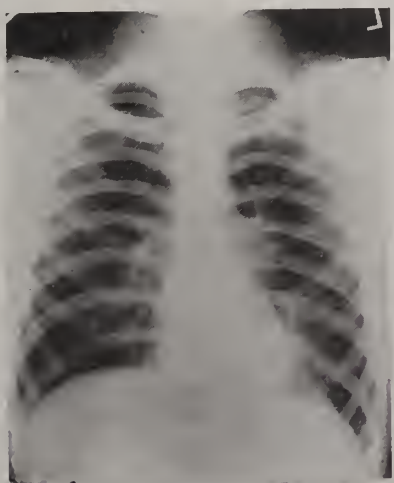


Fig. a. Admission film.

cough became worse and the other symptoms persisted, he was hospitalized.

*Physical Examination:* The patient appeared subacutely ill, but cooperated well. There was dullness at the left lung base posteriorly below the eighth rib. Vocal fremitus was decreased in this area and a few fine, moist râles were heard.

*Laboratory Report:* The white blood count was 6,500. A Wassermann examination was negative. Agglutinations for Malta fever and typhoid fever were negative.

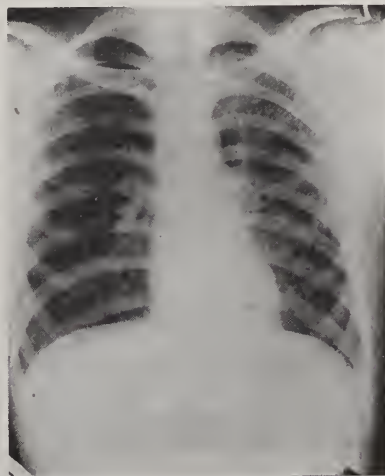


Fig. b. Seven days later.

*Discussion:* A roentgenogram taken on admission (Fig. a) showed definite infiltration at the left base in the cardiophrenic angle. The patient was treated entirely with supportive measures and progressed favorably and uneventfully, although his temperature daily spiked to 101 or 103 degrees for about eight days. A progress film taken seven days later (Fig. b) revealed marked clearing at the left base but some new infiltration in the left apex, particularly in the first intercostal space anteriorly. This infiltration is so typical of that seen in the reinfection type of adult tuberculosis that we think it is wise to call attention to it.

The patient left the hospital five days later after having a normal temperature and being clinically well for three days. Unfortunately, no additional chest films were obtained.

#### COMMENT

At the University Hospital the usual form is the mild case with a relatively short clinical course and roentgenographic findings which clear rapidly as illustrated by the first two cases. With a little experience this type of case is easy to diagnose roentgenographically. It is wise to keep in mind the changes illustrated by the other cases



since, depending on when the first roentgenogram is taken, the diagnosis may not be obvious. Our only patient treated with roentgen therapy is recorded because it is possible that the good response in the extremely ill patient is something more than just coincidental.

## REFERENCES

1. Sante, L. F.: The Chest Roentgenologically Considered, Volume XI, Annals of Roentgenology. Paul B. Hoeber, Inc., New York, 1930.
2. Bowen, A.: Acute influenza pneumonitis. *Am. Jour. Roentgenol.*, xxxiv:168-174 (August) 1935.
3. Oppenheimer, A.: Roentgen therapy of "virus" pneumonia. *Am. Jour. Roentgenol.*, xlix:635-638 (May) 1943.
4. Allen, W. H.: Acute pneumonitis. *Ann. Int. Med.*, x:441-446 (October) 1936.

### AMERICAN ASSOCIATION OF INDUSTRIAL NURSES LAUNCHES MEMBERSHIP DRIVE IN OCTOBER

The American Association of Industrial Nurses will, on October 1, launch its drive for new members. This national association was organized in 1942 in recognition of the growth and expansion in the field of industrial nursing.

The AAIN represents nurses in every field of industrial and mercantile establishments. Its governing board is representative of the country as a whole. Its membership requirements are on a par with those of other standard making nursing bodies. It has already made material progress through the appointment of an executive secretary, in appointing counsellors in strategic areas for advising nurses, and in laying the ground-work for university and college courses in industrial nursing. Its expanding action program is centered on a sharing of common problems by all nurses in industry, and in aiding these nurses to broaden their usefulness to society.

The AAIN actively encourages membership in the nursing profession's official bodies, the district, state and national nurses associations. It also encourages the creation of sections on industrial nursing within these bodies, and it works in close harmony with these and all other agencies concerned with industrial and community health.

In this drive the American Association of Industrial Nurses appeals to industrial management, physicians and safety engineers, as well as to nurses, to bring word of this association to their nurses. A post card inquiry will at once furnish complete information to a prospective member. Address Mrs. Gladys Dundore, RN, Executive Secretary, 54 West Tenth Street, New York City 11, New York.

### CLINICAL CONFERENCE OF KANSAS CITY SOUTHWEST CLINICAL SOCIETY

The Kansas City Southwest Clinical Society announces its Annual Fall Conference, October 2, 3 and 4, 1944, Municipal Auditorium, Kansas City, Missouri.

Distinguished guest speakers will be Dr. Frederic E. B. Foley, St. Paul; Dr. Russell L. Haden, Cleveland; Dr. Robert L. Jackson, Iowa City; Dr. Frank H. Lahey, Boston; Captain Bruce V. Leamer (MC) U. S. Navy, Glenview, Illinois; Dr. William F. Reinhoff, Jr., Baltimore; Dr. Earl C. Sage, Omaha; Dr. Cyrus C. Sturgis, Ann Arbor, and Dr. Owen H. Wangensteen, Minneapolis.

On Tuesday and Wednesday mornings, October 3 and 4, the following symposia on systems will be presented by members of the society: gastro-intestinal, obstetrics, pediatrics, cardiovascular, urogenital, headache and backache.

The opening feature of the meeting will be a Round Table discussion on the Newer things of Medicine as portrayed by the participating guest speakers.

A copy of the *Kansas City Medical Journal*, carrying the completed program, will be mailed to you upon request—Executive Office, 208 Shukert Building, Kansas City 6, Missouri.

### MISSISSIPPI VALLEY MEDICAL SOCIETY MEETS SEPTEMBER 27 AND 28

The Mississippi Valley Medical Society will hold its tenth annual meeting in the Pere Marquette Hotel in Peoria, Illinois, September 27 and 28. Many outstanding speakers are scheduled to appear on the interesting and intensive program, and Iowa doctors are urged to take advantage of this excellent opportunity for postgraduate education. Our President, Dr. M. C. Hennessy of Council Bluffs, will be one of the guest speakers.

A detailed program of the meeting may be obtained from the Secretary, Harold Swanberg, M.D., 209 W. C. U. Building, Quincy, Illinois.

### PREVALENCE OF DISEASE

Disease	July '44	June '44	July '43	Most Cases Reported From
Diphtheria .....	11	9	3	Woodbury
Scarlet Fever.....	68	243	49	Pottawattamie, Polk, Marshall
Typhoid Fever ....	5	4	1	Cerro Gordo, Jackson, Keokuk
Smallpox .....	0	0	2	None
Measles .....	100	410	254	Pottawattamie, Black Hawk, Polk
Whooping Cough..	39	38	243	Woodbury, Johnson
Brucellosis .....	47	36	39	For the State
Chickenpox .....	16	92	31	Boone, Linn
German Measles ..	3	8	11	Boone, Des Moines, Story
Influenza .....	0	0	1	None
Malaria .....	29	21	1	Clinton, Page
Meningitis .....	8	2	11	Polk
Mumps .....	78	270	101	Johnson, Dubuque, Black Hawk
Pneumonia .....	2	18	11	Page, Story
Poliomyelitis ....	16	0	3	Appanoose
Tuberculosis .....	108	90	41	For the State
Gonorrhea .....	214	179	141	For the State
Syphilis .....	128	154	226	For the State

# STATE DEPARTMENT OF HEALTH

*Nathan Diering*

## BIRTH AND DEATH REGISTRATION IN IOWA

L. E. CHANCELLOR, Acting-Director  
Division of Vital Statistics

No one person or group of persons is solely responsible for registration success or failure. Local registrars, hospitals, doctors, parents, undertakers (in the case of death registration), and the state office of vital statistics must all assume responsibility.

### BIRTH REGISTRATION

The last survey made as to completeness of birth registration was in 1940 in connection with the federal census. The figure for Iowa showed that 94.6 per cent of the births were recorded. The percentage may not seem low, but breaking this down we find that between 2,000 and 2,500 births were not recorded for that year.

Undoubtedly, improvement has been made in thoroughness of registration since 1940, but many birth still go unrecorded. To substantiate this, one physician recently had to complete forty-seven birth certificates that he had neglected to file during the past year. Inconvenience is avoided when certificates are completed at the time of birth.

The failure to record even one birth is a disservice to some child who may have a very real need for his certificate later in life.

The minimum standard for admission of a state into the United States Registration Area requires that 90 per cent of all births be properly recorded. The accompanying table shows the percentage of births for each county and for Iowa as a whole as registered with the Division of Vital Statistics for the year 1940.

### DEATH REGISTRATION

Special effort has been made by some physicians to have the cause of death typewritten on certificates and this has proved of great help to county and state offices. All causes of death are coded by the state office according to the International List of Causes of Death, which is available in the "Physicians' Handbook on Birth and Death Registration." Physicians who do not have this con-

## COMPLETENESS OF BIRTH REGISTRATION IN IOWA (BY COUNTY) 1940

County	Per cent	County	Per cent	County	Per cent
Adair .....	88.9	Franklin .....	95.7	Montgomery ..	95.8
Adams .....	97.6	Fremont .....	98.6	Muscatine .....	94.2
Allamakee .....	93.7	Greene .....	92.4	O'Brien .....	94.3
Appanoose .....	94.8	Grundy .....	87.0	Osceola .....	89.0
Audubon .....	93.1	Guthrie .....	98.7	Page .....	98.4
Benton .....	99.1	Hamilton .....	96.8	Palo Alto .....	94.3
Black Hawk .....	95.8	Hancock .....	83.3	Plymouth .....	95.4
Boone .....	96.9	Hardin .....	90.7	Pocahontas .....	88.1
Bremer .....	88.2	Harrison .....	75.2	Polk .....	97.7
Buchanan .....	89.7	Henry .....	95.8	Pottawattamie ..	96.9
Buena Vista .....	96.7	Howard .....	97.3	Poweshiek .....	95.8
Butler .....	94.3	Humboldt .....	90.9	Ringgold .....	92.6
Calhoun .....	98.1	Ida .....	96.6	Sac .....	96.5
Carroll .....	95.3	Iowa .....	97.8	Scott .....	98.4
Cass .....	96.9	Jackson .....	88.1	Shelby .....	88.5
Cedar .....	77.5	Jasper .....	91.8	Sioux .....	93.3
Cerro Gordo .....	94.7	Jefferson .....	94.9	Story .....	96.6
Cherokee .....	98.9	Johnson .....	97.5	Tama .....	91.0
Chickasaw .....	94.8	Jones .....	93.2	Taylor .....	90.6
Clarke .....	100.0	Keokuk .....	91.7	Union .....	88.5
Clay .....	97.2	Kossuth .....	97.1	Van Buren .....	91.7
Clayton .....	92.2	Lee .....	97.2	Wapello .....	94.3
Clinton .....	91.4	Linn .....	97.1	Warren .....	98.4
Crawford .....	86.0	Louisa .....	84.6	Washington .....	97.7
Dallas .....	92.1	Lucas .....	92.2	Wayne .....	92.5
Davis .....	88.4	Lyon .....	82.1	Webster .....	98.5
Decatur .....	93.9	Madison .....	89.8	Winnebago .....	93.5
Delaware .....	89.8	Mahaska .....	82.3	Winneshek .....	96.9
Des Moines .....	96.4	Marion .....	91.1	Woodbury .....	96.1
Dickinson .....	98.3	Marshall .....	98.0	Worth .....	81.3
Dubuque .....	94.1	Mills .....	95.8	Wright .....	94.3
Emmet .....	100.0	Mitchell .....	95.5	State .....	94.6
Fayette .....	88.7	Monona .....	89.5		
Floyd .....	89.3	Monroe .....	94.3		

venient Handbook may secure a copy upon request of the Division of Vital Statistics, Iowa State Department of Health, Des Moines 19, Iowa.



### ORAL VERSUS ORTHODOX METHOD OF TYPHOID IMMUNIZATION

Various investigators have in recent years studied the effectiveness of oral administration of typhoid vaccine as compared with the subcutaneous method of inoculation.

Elledge, Kennedy and Cumming,<sup>1</sup> staff members of the Veterans Administration, immunized 2,050 patients and employees following a flood which occurred at Danville, Illinois, in the spring of 1939. Subcutaneous inoculations (0.5 cc., 1.0 cc., and 1.0 cc. doses at five-day intervals) were given to 1,200 persons, while 850 received oral vaccine (one capsule 30 to 45 minutes before breakfast each day for three days). Reactions in each group affected about 1 per cent of those immunized. "Nausea and upset stomach" were typical complaints in the small percentage following oral administration.

Triple typhoid vaccine of the same manufacture was used, administered orally to one and subcutaneously to the other group. Agglutination was by the rapid slide method, using four different antigens. Determination of relative effectiveness of the two methods was based on agglutination tests, performed on the blood serum of fifty persons selected at random in each group, about four weeks after immunization. Results are summarized as follows:

1. Of the fifty persons who received vaccine orally, thirty-five (70 per cent) failed to show any agglutination; on the other hand, all of the fifty people treated by the orthodox method showed varying degrees of positive agglutination with the 4 antigens.

2. In general, comparing the agglutination in the two groups, reactions were weaker following the oral method of vaccination.

"It must be concluded in this series of 100 taken at random from approximately 2,100 persons inoculated, the agglutination reactions by the method used were very poor in those given oral vaccine as compared with those given subcutaneous vaccine. As the agglutination tests are an index of immunity, it must be concluded that the percentage of immunity by the oral vaccine method is low."

#### REPORT FROM RESEARCH LABORATORIES, ARMY MEDICAL SCHOOL

The authoritative volume entitled "Immunization to Typhoid Fever," by Colonel J. F. Siler and associates<sup>2</sup> of the Army Medical School, Washington, D. C., includes a section dealing with "Comparison of Protective Properties of Anti-typhoid Vaccine Administered by Mouth

and Administered Subcutaneously" (pp. 146-151).

In 1938, Colonel Siler furnished Dr. Moor (Medical School, University of Oklahoma) with vaccine made from the virulent strain 58 of *Eberthella typhosa*, "employed since 1937 in the preparation of typhoid vaccine for routine use by the Army, Navy and other Governmental Agencies." The vaccine given orally to a group of twenty-five medical students in Oklahoma contained ten billion typhoid organisms (strain 58), and five billion each of paratyphoid A and B, to each dose. The vaccine was taken by mouth on three consecutive days. Blood specimens were secured from the volunteers before the initial dose, again in two weeks, and a third time six weeks after immunization had been completed. Agglutination tests were performed on the serum specimens by Dr. Moor; in addition, mouse protection tests for determination of antibody were performed at the Army Medical School.

Agglutinins were demonstrated in dilutions 1:80, in serum specimens taken two weeks after immunization, and in dilutions of 1:320 in specimens obtained six weeks after completion of immunization.

More significant than agglutination findings, however, were results of the mouse protection tests "to detect the possible presence and concentration of specific humoral antibodies" in the serum specimens before and after immunization by the oral method. "In only one instance (out of 25 immunized by the oral route) was there an increase in antibody content sufficient in amount to protect against even 100 M L D (minimum lethal doses). In analogous studies of increases in antibody content following the administration of 3 doses of vaccine subcutaneously it has been our experience that the increase in antibody content usually is sufficient to protect against 1,000 to 1,000,000 or more M L D."

Colonel Siler and his co-workers summarize their findings as follows: "Though the number of cases analyzed is small, the results obtained are so completely negative that we feel there is justification for concluding that typhoid vaccines administered subcutaneously give a much higher degree of protection than do typhoid vaccines administered by mouth, insofar as immunity can be measured by mouse protection tests."

#### REFERENCES

1. Elledge, Lloyd C., Kennedy, Mary A., and Cumming, Katherine MacDonald: Comparative study of immunity produced in typhoid and associated diseases by subcutaneous and oral vaccinations. *Med. Bull. Veterans Administration*, xx:56-57 (July) 1943.
2. Siler, J. F., et al: Immunization to Typhoid Fever. *Am. Jour. Hygiene, Monographic Series*, No. 17, September, 1941.

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THE EMIC PROGRAM AND THE  
CHILDREN'S BUREAU

It is necessary to preface any remarks about the government's EMIC program with the statement, which has been reiterated repeatedly, that the medical profession is in full sympathy with the government's primary purpose of relieving the minds of servicemen in the four lowest grades of financial worry concerning medical care for their pregnant wives and sick infants. Such a statement is necessary in order that servicemen and their wives may be reassured, particularly since there has been a tendency for occasional lay press stories to give a different point of view. The objections of the physicians have not been to the purpose of this program, but rather to its administrative rulings imposed by officials of the Children's Bureau in the Department of Labor at Washington. That servicemen have no cause for worry but that their needy wives and infants will be taken care of, even though the rank and file of the physicians of the nation who are rendering the service are in severe disagreement with the Bureau's administrative rulings, is attested by the fact that from the beginning of the program in March, 1943, through May 1, 1944, some 355,000 mothers and infants have received federal aid under the program. And recently Congress has made available an additional \$42,800,000 for this purpose for the fiscal year July 1, 1944, to July 1, 1945. Because of their unwillingness to impede the war effort in any way physicians will patriotically continue to cooperate in the program, at least until the war is over, in spite of their feeling that the Children's Bureau has taken advantage of a war situation to impose rulings which would not

be tolerated for a moment under peacetime conditions.

The objections of the physicians to the EMIC program have been voiced vigorously on many occasions, but thus far their remonstrances have fallen on deaf ears in Washington. Among the grievances which have rankled most deeply is the fact that although physicians were to do the work they were given no voice whatever in formulating the conditions under which they would perform their services. The Children's Bureau drew up the rules and notified each serviceman's wife by an enclosure accompanying her allotment check that she was entitled to free obstetric service and that her children under a year of age, in case of illness, were entitled to free medical care. Physicians were simply told how and how much they were to be paid for their services. Unquestionably much, if not all, of the present ill feeling between the physicians and the Children's Bureau could have been avoided if the medical profession had been called in at the beginning and its cooperation sought in formulating a joint plan to carry out a necessary and worthy war project. But apparently such is not the way governmental bureaus work. Had the medical profession been given the courtesy of a cooperating voice, it is easy to conceive of the enthusiasm with which national, state, and county medical units would have been organized to see that the wives and infants of our servicemen who are sacrificing so much on the battlefields of the world received the best in medical care which our profession has to offer and which no one will deny they so richly deserve.

One of the guiding principles of medical practice which physicians have tenaciously sought to maintain throughout the years is the one of no injection of a third party between the physician and his patient. The wishes of the physicians were completely ignored in this respect under the administrative rulings imposed by the Children's Bureau. The House of Delegates of the American Medical Association in 1943 requested that the subsidy to the wives of servicemen under the EMIC program be paid directly to them, thus leaving physician and patient free to make their own financial arrangements. In reply to a questionnaire submitted to Iowa physicians in May of this year, 696 of a total of 917 who answered favored payment by the government to the patient and patient to physician. Official representatives of the Iowa State Medical Society, Dr. Plass of Iowa City and Dr. Bernard of Clarion, presented the physicians' view on this question before the House Appropriations Committee in Washington on April 27. Physicians from other states did the same, and yet the appropriation



was passed without change in the Children's Bureau's method of payment. The government's position seemed to be that it was acting in favor of the doctors, because if the subsidy were to be paid directly to the serviceman's wife she might spend it for something else and the physician would not get paid at all.

Another ruling of the Children's Bureau to which physicians object (in Iowa 849 to 69) prohibits separation of hospital from medical care. In other words, a serviceman's wife cannot have her hospital bill for maternity care paid by the government and be free to make her own financial arrangements with her physician unless the physician will agree in a signed statement that he will make no charge for his services. Nor can a wife make use of additional funds of her own which might come from hospital, sickness, or health insurance policies, or from friends or relatives, to purchase semiprivate or private room facilities and still receive the government subsidy. In signing the application for medical care under the EMIC program, the physician agrees that he will accept no supplemental fees from any source for his services other than those allowed by the government, regardless of the patient's ability or willingness to pay them. Eight hundred twenty-two Iowa physicians out of a total of 914 replying to the questionnaire on this latter provision objected and wanted the clause removed from the application blank. Thus far the Children's Bureau has been adamant in its refusal to separate hospital from medical care or to permit supplemental fees, maintaining as its main reason that to do so would subject each serviceman's wife to the possibility of having to bargain with either the hospital or the physician over the fee she was to pay. This it is claimed would defeat the whole purpose of the program, which is to provide obstetric and infant care absolutely free to the families of servicemen in the four lowest grades. All of these administrative restrictions which we have mentioned have combined to create a feeling among many physicians throughout the nation of resentment and antagonism toward the Children's Bureau.

The Executive Board of the American Academy of Pediatrics goes further in its analysis of the situation (*The Journal of Pediatrics*, July 1944). This group sees the Children's Bureau as definitely bent upon continuing in the postwar period some sort of a plan growing out of its experience in the EMIC program which would clearly perpetuate it in the practice of medicine. As indication of this intent are pointed out statements like that written by the Associate Chief of the Children's Bureau, Dr. Martha Eliot, ap-

pearing in the January, 1944, number of *Parents Magazine*. Says Dr. Eliot, "The start of this (EMIC) program marks a red-letter day for the United States for it is truly a program of public maternity care. It is a small *beginning* to be sure, but its significance is great. It marks a major break from our present makeshift system . . . Why shouldn't we as citizens dream a dream of *public* maternity care for expectant mothers and their babies?"

"We are already paying the bill for a considerable portion of this out of our individual pockets. If, instead, we were to divide up the total cost among us in the form of general taxes collected by the state and federal government annually, it would probably not amount to more than an average of \$2.00 to \$2.50 per taxpayer." "Plans for paying doctors and nurses will have to be worked out. Ideally, full-time salaried physicians in each hospital would be best."

Also referred to is Folder No. 31, recently issued by the Children's Bureau, and entitled "Maintaining Well-Baby Clinics in Every Community." This publication advocates the establishment of a well-baby clinic in every community under the sponsorship of a local defense-council committee and financed by federal social security funds available through the Children's Bureau. Such clinics would be open to everyone, regardless of their financial status, and the rosy picture is presented, "The service that the mother receives in child-health conference is more than she can get in the usual office visit to a doctor, for in the clinic she has the combined help of a group—physician, dentist, nurse, nutritionist, and others—working together to advise her about her child's care."

The attitude of the Children's Bureau officials in the management of the EMIC program plus the published statements referred to above, as well as others, have convinced the pediatricians that the Children's Bureau fully intends to direct its efforts toward the development of a postwar public maternity and child health program which will directly invade the field of private practice of medicine. This they believe is entirely beyond the purposes for which the Children's Bureau was created and is entirely foreign to the intention of Congress in appropriating funds for the EMIC program, and they therefore publicly announce withdrawal of all further support of the Children's Bureau, except the EMIC program for the duration of the war, and to work individually and collectively to have the Children's Bureau placed under the United States Public Health Service. As evidence of their willingness to do everything possible to promote the war effort, they even accept the administrative rulings of the Children's

Bureau for carrying out the EMIC program discussed at the beginning of this editorial, although they stress it is in view of the exigencies of the war that they do so.

The position taken by the Executive Board of the American Academy of Pediatrics would seem to be aimed at the crux of the situation, not only as it affects medicine but all other phases of life in America today. Private enterprise, under which this nation has achieved heights of accomplishment not equalled in any field anywhere in the world, is threatened on all fronts by government bureau invasion. Sooner or later the people will have to decide whether the forces of government are to be used in assisting private enterprise to continue in the upward spiral of progress which this nation has known for the last century and a half or whether private enterprise will be assigned a secondary rôle under the domination of political government. As applied to medicine, the question facing us is whether the functions of a government agency like the Children's Bureau are to be used to promote physicians in the better care of children in America or whether physicians are to become employees of the Children's Bureau in hospitals and clinics. Any fair minded person who "reviews the record" can come only to the conclusion that the high standard of child health which we enjoy in this country today has been the result of leadership and pioneering by pediatricians and their fellow physicians. No one, least of all the pediatricians, will deny the necessity for participation in public health by governmental agencies such as federal, state, and county health departments; nor are physicians opposed to necessary changes to facilitate better utilization of and distribution of medical services in keeping with the socioeconomic changes occurring in the nation. But they are opposed to governmental invasion of the practice of medicine, such as now seems to be the intent of the Children's Bureau, on the good and sufficient grounds that the quality of medical practice would be affected adversely. Is it high time serious consideration be given to the proposal, which has already been made repeatedly, that a single Department of Health be formed in Washington and that its head be a Cabinet member. Your representatives in Congress are the ones who can do this, but they have to know what you want done.

#### THE PRESENT STATUS OF POLIOMYELITIS MANAGEMENT

Because the season of poliomyelitis is upon us, and all of us, lay persons and physicians alike, are "poliomyelitis conscious," and because the current controversy in medical circles concerning

our knowledge or lack of knowledge of the disease and its management has created wide interest, the JOURNAL believes its readers will be interested in an editorial published in the July issue of the *Journal-Lancet*. This particular issue of the *Journal-Lancet* was a special poliomyelitis number, all the articles contained in it being on poliomyelitis. The editorial quoted below in full was prepared by four outstanding physicians in the Northwest where Miss Kenny has carried on most of her work in this country, and, in our opinion, is a very well prepared and fair appraisal of our present poliomyelitis knowledge. The editorial:

"There is no rule of thumb for the treatment of any disease. For some diseases there are more rigidly defined routines of treatment than for others, but infantile paralysis does not fall into the group for which the scientific rationale of treatment is so clear that deviations from a fixed rule are impossible.

"Whenever medical research discovers a certain or virtually certain method of combatting a pathogenic agent or the effects of such an agent it is a part of the duty of every physician to employ that method unless and until other equally good or better methods are at hand. But until a method has been proved to have such superiority over all others and to be reasonably successful, it is not only the right but the duty of physicians to examine all methods critically and to continue to search for better ones.

"Poliomyelitis is a virus disease of the central nervous system with serious effects upon the motor apparatus of the body. No proof exists that any effects upon muscles and their actions come about in any way but secondarily to neurone damage. There have been suggestions from two lines of evidence that primary muscle damage occurs, but in neither case will the arguments bear rigorous scrutiny. Our present knowledge does not permit us to ascribe any of the pathological consequences of poliomyelitis to primary damage anywhere but in the nervous system.

"Nevertheless because the obvious end effects of infantile paralysis are muscle function defects it is apparent that sound therapeutic practice should look toward preservation of motor functions as its goal. Viewed broadly the problems of treatment in poliomyelitis are twofold, first the limitation of damage in the acute phase to the lowest possible amount, and second the achievement and maintenance of maximal utilization of the motor units remaining after the virus has done its damage.

"Unfortunately nothing is known with certainty as to how the damage in the early acute stage can be minimized. Conservative management with measures directed toward symptomatic relief are indicated. To what extent any such measures decrease neuronal damage is quite unknown.

"In the later period of the acute stage likewise, the advantages of one or another form of management are uncertain. The Kenny workers have accumulated clinical data showing that the energetic use of hot packs in this stage is not inferior as a method of treatment to any other technic, and doubtless superior to some, such as rigid immobilization. These workers stress the increased comfort of patients so treated and suggest a lower incidence of ultimate crippling paralysis. In the acute stage of the disease several workers have noted muscle tenderness, resistance to extension and abnormal degrees of resting tonus, among other signs, which Miss Kenny refers to collectively as muscle spasm. The role played by such defects in causing or influencing impairment of function is at present unknown although it has been suggested that they



exert an unfavorable effect. Consequently the virtue of any measures directed at relieving such symptoms is still controversial.

"Regarding the importance of conserving and then bringing into use every possible motor unit undamaged by the disease there can be no doubt whatever. After the virus disease has run its damaging acute course the job of the physician and his aides in poliomyelitis treatment is perfectly clear, in principle at least. That job is to assist the patient in learning how to utilize his undamaged motor units, to prevent disuse atrophy and to obviate crippling deformities. In most instances this problem is one of highly expert physical therapy. In this area there is no doubt that the Kenny method is effective. There are undoubtedly other regimens which have yielded equally successful outcomes, but there can be little question that Miss Kenny has given strong and useful accent to an altogether too frequently neglected aspect of poliomyelitis after-care.

"There has been much controversy over the merits of the Kenny methods of treatment of infantile paralysis. That treatment definitely has not consistently prevented crippling paralysis in cases with permanent anterior horn cell damage. Whether it has resulted in a smaller fraction of such paralysis is impossible to say because no studies in which exactly comparable paired cases were treated by this and any other method have ever been made. Nevertheless, it has been conceded by many that crippling deformity is less in the series of Kenny-treated patients than in any other comparable groups of cases. Further it is not unlikely that a larger share of undamaged motor units are brought into useful activity by the energetic re-training procedures in the Kenny regimen than have been so utilized in the types of treatment formerly in vogue. It is quite unnecessary to adopt Sister Kenny's terminology of 'mental alienation' in order to concede that in her muscle re-education she accomplishes something useful, something which every physician treating paralytic poliomyelitis has also attempted to achieve and in which many have been less successful.

"It is unfortunate that Sister Kenny has introduced two ill-defined terms with ambiguous meanings into the description of the functional pathology of poliomyelitis because this has led to unnecessary vituperation. Neither 'spasm' nor 'mental alienation' are words whose widely accepted meanings correspond with her usages. Nevertheless, it would be less than generous for medical scientists to ignore a contribution because it was described awkwardly. Rather it is to be hoped that more exact study will permit a satisfactory description of the several components in the damage to motor units in poliomyelitis, and that the positive merits in Miss Kenny's therapeutic procedures may be singled out for more effective use. Sister Kenny has unquestionably performed a great service in emphasizing that many factors are involved in re-learning the use of muscles with damage to large numbers of motor units, and that great practical advantage can be gained by physical therapy methods directed toward prevention of skeletal deformity. Whether her methods are unique or without precedent is of little practical consequence in this matter because it must be admitted that she has given an emphasis to those notions which they did not have before.

"The pressing problem in poliomyelitis management is still fundamental research. The ideal solution of the problems of any disease is its prevention. Search should always be continued for such a solution until it is found. But in the absence of such an ideal solution, there are two 'next best' approaches. The better of the two would be a method of preventing as completely as possible the

deleterious effects of the pathogenic agent. The next best is the salvage of all that is left to work with after the agent has done its damage.

"Research in the prevention of the disease has not as yet yielded an answer of any use. Research on combatting the pathogenic agent during the course of the disease has also been disappointing. Sera and chemotherapeutic agents have not as yet been found to be effective. Further study in both of these directions is going on apace and the optimism born of successes in other fields leads us to be very hopeful that a useful answer will be found. Research on the best methods of salvaging and strengthening what is left of the motor apparatus after the acute damage phase is past has yielded much that is of value. Such studies too are being prosecuted with great energy by investigators of high talent. It is not too much to hope that in this area as well there will be important progress in the near future.

J. C. MCKINLEY, M.D.  
IRVINE MCQUARRIE, M.D.  
W. A. O'BRIEN, M.D.  
M. B. VISSCHER, M.D."

#### THE STORY OF DDT (DICHLOR DIPHENYL TRICHLOROETHANE)

The discovery and development of the sulfa drugs and of penicillin form some of the most romantic and spectacular chapters in the history of man's struggle to conquer his bacterial enemies. Now comes a parallel tale, equally romantic, of a substance which promises to be as effective against insect pests as the sulfonamides and penicillin are against bacteria. According to Geigy Company, Inc., of Basle, Switzerland, and New York, DDT was synthesized in 1874 by a young German chemistry student in routine preparation of a thesis. Its formula was recorded in the Proceedings of the German Chemical Society, where it remained in obscurity until recently. Several years ago a scientist of J. R. Geigy of Basle, Switzerland, synthesized the product and discovered its miraculous insecticidal composition. In 1939 the potato crop of Switzerland was threatened by the Colorado potato beetle. DDT brought the destructive potato beetle under control. Further experimentation demonstrated its effectiveness against many other agricultural pests. Outstanding among the discoveries made by Geigy was the fact that DDT was an amazingly potent substance against the typhus carrying louse and that its lousicidal properties were long lasting. This information was imparted to certain United States authorities when this country entered the war, and a quantity of the material was imported for experimental purposes. Intensive study was carried on in many parts of the United States and North Africa with the result that DDT was ready for use when a typhus epidemic threatened in Naples, Italy, shortly after the liberation of that city.

Speaking of the developmental steps leading to

its adoption for Army use, Colonel Ahnfeldt, Director, Sanitation and Hygiene Division, Office of the Surgeon General, states that after a great many toxicologic studies the safety of DDT was established and a mixture of 10 per cent DDT in pyrophyllite was decided upon. "This powder," he states, "is packaged in a 2-ounce, pepper-type can, and distributed on a basis of 1,000 cans per 1,000 men per month to troops in areas where louse-borne epidemic typhus exists. Each soldier carries a can in his pack, and the powder is applied by dusting it onto the inner surface of the underwear before he dons the garment, paying particular attention to the seams."

By means of a hand "flit" gun fitted with a rubber nozzle, or power dusters utilizing compressed air, Colonel Ahnfeldt states that mass treatment of large numbers of persons daily is possible. Thus at Naples as many as 50,000 persons daily during the threatened typhus outbreak were dusted, and altogether a total of two and one-quarter million persons were deloused. The epidemic was stopped and no American soldier in Italy was reported as having developed typhus.

An emulsion of DDT has been prepared which can be used to impregnate clothing and has been shown to retain its lousicidal effectiveness for a month or more and through eight launderings.

Walls and ceilings sprayed with a DDT composition kill flies for three months. Cattle can enjoy comfort by being freed from flies, and fleas can be eradicated from cats and dogs for long periods of time. One spraying of a bed will protect it against bedbugs for as long as 300 days. These are but a few of the domestic uses to which DDT will undoubtedly be put after the war's end.

The list of agricultural pests against which DDT has already been found to be effective is a long one and cannot be recited in detail here. Suffice it to say that the farmer and fruit grower have a new era to look forward to when supplies can be diverted from military to civilian use.

Further experimenting will, of course, have to come before the full uses of this remarkable chemical will be uncovered. Possibly some undesirable effects, such as killing insects like the honey bee which are not pests, may have to be coped with; but certainly it has already been amply demonstrated that the benefits to mankind by protecting him against insect-borne diseases, and by saving him millions of dollars annually in crop protection are enormous.

The American Congress of Physical Therapy meets for its twenty-third annual scientific and clinical session September 6, 7, 8 and 9, 1944, inclusive, at the Hotel Statler, Cleveland, Ohio.

## SPEAKERS BUREAU ACTIVITIES

### WARTIME MEETING AT SCHICK GENERAL HOSPITAL

A wartime meeting of the Iowa State Medical Society was held at Schick General Hospital in Clinton Friday, August 11, 1944, at which 250 members of the State Society assembled at 10:00 a. m. and made ward rounds on the various sections of that 1,850 bed Army General Hospital. At 11:30 there were demonstrations of sensitivity of micro-organisms to penicillin and sulfa drugs. A tour of the Reconditioning Facilities was followed by lunch in one of the Patients' Mess Halls.

A combined meeting was held in the Post Theater at 2:00 p. m. where three groups of cases, illustrating war injuries and reconstructive measures, were presented and discussed. The Post Band presented a concert on the Parade Grounds at 4:40, followed by formal retreat. Evening mess was served in one of the Patients' Mess Halls at 5:30.

At 6:30 a combined meeting was held in the Post Theater. Colonel Dean F. Winn, Commanding Officer of Schick General Hospital, opened the meeting and extended a warm welcome to the visitors, and the word warm is used advisedly. Colonel Winn introduced Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association*, who spoke on "Medicine in the Postwar Period." He asserted that a great majority of the physicians and surgeons now in the armed forces have indicated their desire to return to practice as it existed before the war. He added that more than 90 per cent of the men in uniform have expressed the desire to extend their education and to acquaint themselves with the new developments in medicine and surgery before resuming practice. Dr. Fishbein stated that progress had already been made toward establishing postgraduate medical schools, and that the present GI Bill in Congress looks toward providing financial aid for such postgraduate training. The speaker anticipates a shortage of doctors in 1948, so that there would be but one physician for every 7,500 persons in the United States, and he suggested that the demobilization period would be the opportune time for the redistribution of physicians. He prophesied that the postwar period would see hospitals become more and more the center of medical practice in the communities of the nation, and he urged that, with the aid of health centers, physicians give to their patients modern medicine and surgery, as individual doctors, rather than as Federal employees.

Colonel Grover C. Penberthy, Surgical Consultant of the Seventh Service Command, then spoke on the benefits war has brought to medicine. He pointed out that the extremely low mortality rate of the battle wounded, 3.5 per cent, has resulted from improved methods and new medicines. He traced the history

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# Roster of Iowa Physicians in Military Service

As of August 25, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Treasure Island, Cal.)..Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (APO 230, New York, N. Y.)..Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.)..Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.).....A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.)..Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Camp Ellis, Ill.).....Capt., A.U.S.  
Huston, M. D., Centerville (Camp Bowie, Texas).....Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.)..Capt., A.U.S.  
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) ..... Capt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas).....Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Ottumwa, Iowa).....Lt. Comdr., U.S.N.R.  
Ellyson, C. D., Waterloo (New Orleans, La.).....Lt., U.S.N.R.  
Erickson, M. G., Cedar Falls (Camp Berkeley, Tex.) Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.)..Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
Ludwick, A. L., Waterloo (Abilene, Texas).....Major, A.U.S.  
Marquis, F. M., Waterloo (APO 923, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Banana River, Fla.)..Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.)..Major, A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. L., Waterloo (Milwaukee, Wis.).....Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Ames, Iowa).....Lt., U.S.N.R.

## Boone County

Brewster, E. S., Boone (Camp Campbell, Ky.).....Major, A.U.S.  
Healy, M. J., Boone (Camp Chaffee, Ark.).....Capt., A.U.S.  
Shane, R. S., Pilot Mound (Des Moines, Ia.).....Lt. Col., A.U.S.

## Bremser County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.) ..... Major, A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.) ..... 1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.)....Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (APO 9787, New York, N. Y.)..Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.)..Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho).....Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.)..Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.).....Major, A.U.S.

## Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash) Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rolf, F. O., Parkersburg (Springfield, Mo.).....1st Lt., A.U.S.

## Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.).....Capt., A.U.S.  
McVay, M. J., Lake City (Waco, Texas).....Capt., A.U.S.

Peek, L. H., Lake City (Jefferson Barracks, Mo.)..Capt., A.U.S.  
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (APO 15260, San Francisco, Cal.) ..... Capt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Berkeley, Texas).....A.U.S.  
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) ..... Capt., A.U.S.  
Cochran, J. L., Carroll (Gulfport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Ft. Dix, N. J.).....Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.).....Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.).....A.U.S.  
Tindall, R. N., Coon Rapids (Hines, Ill.).....Major, A.U.S.  
Wyatt, M. R., Manning (De Ridder, La.).....Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (APO 627, New York, N. Y.) ..... Major, A.U.S.  
Longstreth, C. M., Atlantic (Norman, Okla.) Lt. Comdr., U.S.N.R.  
Needles, R. M., Atlantic (APO 131, New York, N. Y.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.).....Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.).....Lt., U.S.N.R.  
Mosher, M. L., West Branch (APO 560, New York, N. Y.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Camp Bowie, Texas).....Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.).....Capt., A.U.S.  
Egloff, W. C., Mason City (Chandler, Ariz.).....Capt., A.U.S.  
Flickinger, R. R., Mason City (Tuscaloosa, Ala.).....Capt., A.U.S.  
Hale, A. E., Dougherty (Camp Forrest, Tenn.).....Capt., A.U.S.  
Harris, R. H., Mason City (Dyersburg, Tenn.).....Capt., A.U.S.  
Harrison, G. E., Mason City (APO 365, New York, N. Y.) ..... Col., A.U.S.  
Houlihan, J. E., Mason City (APO 838, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (Ayer, Mass.).....Capt., A.U.S.

## Cherokee County

Bullock, G. D., Washta (Camp Claiborne, La.)...Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.) Capt., A.U.S.  
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) ..... Major, A.U.S.  
Murphey, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) ..... Major, A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.)..1st Lt., A.U.S.

## Clay County

Edington, F. D., Spencer (Fort Devens, Mass.).....Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.).....Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Glesne, O. G., Monona (Knoxville, Iowa).....Capt., A.U.S.  
Rhomberg, E. B., Guttenberg (APO 584, New York, N. Y.) ..... Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Portland, Ore.).....Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.).....A.U.S.  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) ..... Capt., A.U.S.  
Hill, D. E., Clinton (APO 9787, New York, N. Y.).....Capt., A.U.S.  
King, R. C., Clinton (APO 403, New York, N. Y.).....Capt., A.U.S.

Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Norment, J. E., Clinton (Washington, D. C.) ..... Lt. Comdr., U.S.N.R.  
 Riedesel, E. V., Wheatland (Fort Douglas, Utah) ..... Capt., A.U.S.  
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Snyder, D. C., De Witt ..... 1st Lt., A.U.S.  
 Speigel, I. J., Clinton (Clinton, Iowa) ..... 1st Lt., A.U.S.  
 Van Epps, E. F., Clinton (APO 9921, New York, N. Y.) ..... Capt., A.U.S.  
 Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Wells, L. L., Clinton (Ft. Riley, Kans.) ..... Capt., A.U.S.

#### Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.) Major, A.U.S.  
 Grau, A. H., Denison, (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maire, E. J., Vail (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.) ..... Capt., A.U.S.

#### Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Hines, Ill.) ..... 1st Lt., A.U.S.  
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) Major, A.U.S.  
 Fail, C. S., Adel (Pacific Beach, Wash.) ..... Lt., U.S.N.R.  
 Margolia, J. M., Perry (APO 5816, New York, N. Y.) Capt., A.U.S.  
 McGilvra, R. I., Guthrie Center (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mullmann, A. J., Adel (Camp Campbell, Ky.) ..... Capt., A.U.S.  
 Nicoll, C. A., Panora (Camp Campbell, Ky.) ..... Capt., A.U.S.  
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.) ..... Capt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.) ..... Capt., A.U.S.

#### Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.) ..... Capt., A.U.S.  
 Gilfillan, G. W., Bloomfield (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.) ..... Capt., A.U.S.

#### Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Clark, R. E., Manchester (APO 419, New York, N. Y.) ..... Capt., A.U.S.

#### Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio) ..... 1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.) ..... Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.) ..... Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (Fort Lewis, Wash.) Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.) ..... Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sage, E. C., Burlington (Shoemaker, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henning, G. G., Milford Camp Adair, Ore.) ..... Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.) ..... Capt., A.U.S.  
 Rodaway, D. F., Spirit Lake (APO 600, New York, N. Y.) ..... Major, A.U.S.

#### Dubuque County

Beddoes, M. G., Cascade (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Conzett, D. C., Dubuque (APO 645, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio) ..... Capt., A.U.S.  
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.) ..... Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas) ..... 1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.) ..... Major, A.U.S.  
 Langford, W. R., Epworth (Miami Beach, Fla.) ..... Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.) ..... Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.) ..... 1st Lt., A.U.S.  
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.) Capt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.) 1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.) ..... Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.) ..... Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.) Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.) Major, A.U.S.  
 Smith, C. W., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.) ..... Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas) ..... Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Great Lakes, Ill.) ..... Lt. Comdr., U.S.N.R.

#### Emmet County

Clark, J. P., Estherville (APO New York, N. Y.) ..... Capt., A.U.S.  
 Collins, L. E., Estherville (Camp Dodge, Iowa) ..... A.U.S.

Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.) ..... Major, A.U.S.  
 Sulzbach, J. F., Oelwein ..... Lt., U.S.N.R.  
 Walsh, W. E., Hawkeye (Port Chicago, Cal.) Lt. Comdr., U.S.N.R.

#### Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.) ..... Major, A.U.S.  
 Flater, N. C., Floyd (APO 350, New York, N. Y.) Capt., A.U.S.  
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mackie, D. G., Charles City (APO 493, New York, N. Y.) ..... Capt., A.U.S.  
 Miner, J. B., Jr., Charles City (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.) ..... Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.) ..... Lt., U.S.N.R.  
 Walton, S. G., Hampton (APO New York, N. Y.) ..... Capt., A.U.S.

#### Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.) ..... Capt., A.U.S.  
 Marrs, W. D., Tabor (Ardmore, Okla.) ..... Capt., A.U.S.  
 Powell, R. A., Farragut (Great Lakes, Ill.) ..... Lt. (jg), U.S.N.R.  
 Wanamaker, A. R., Hamburg (APO 939, Seattle, Wash.) ..... Capt., A.U.S.

#### Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.) ..... Capt., A.U.S.  
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.) ..... Capt., A.U.S.

Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Limburg, J. I., Jr., Jefferson (APO 503, San Francisco, Cal.) ..... Major, A.U.S.  
 Lohr, P. E., Churdan (San Diego, Cal.) ..... A.U.S.

#### Grundy County

Cullison, R. M., Dike (Fort Howard, Md.) ..... Major, A.U.S.  
 Rose, J. E., Grundy Center (Des Moines, Iowa) ..... Lt. Comdr., U.S.N.R.

#### Hamilton County

Buxton, O. C., Webster City (APO 9921, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.) Major, A.U.S.  
 James, D. W., Kamrar (APO 782, New York, N. Y.) ..... Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 383, New York, N. Y.) ..... Major, A.U.S.  
 Mooney, F. P., Jewell (London, England) ..... Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Berkeley, Texas) ..... Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.) ..... Capt., A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.) ..... Capt., A.U.S.

#### Hancock-Winnebago Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.) ..... Capt., A.U.S.  
 Dulmes, A. H., Klemme (APO 1778, New York, N. Y.) ..... Capt., A.U.S.  
 Eller, L. W., Kanawha (APO 302, New York, N. Y.) ..... Capt., A.U.S.  
 Irish, T. J., Forest City (Farragut, Idaho) Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Delhart, Tex.) ..... Major, A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.) ..... Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.) ..... Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Jansoni, J. W., Eldora (APO 4834, New York, N. Y.) ..... Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Camp Grant, Ill.) ..... Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.) ..... Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.) ..... 1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.) Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Camp Pickett, Va.) ..... A.U.S.  
 Burbridge, G. E., Logan (APO 511, New York, N. Y.) ..... Major, A.U.S.  
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.) ..... Capt., A.U.S.  
 Heise, C. A., Jr., Missouri Valley (San Pedro, Cal.) ..... Lt., U.S.N.R.  
 Tamisiea, F. X., Missouri Valley (APO 5934, New York, N. Y.) ..... Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) ..... Major, A.U.S.



Dwankowski, Carl, Mt. Pleasant (APO 505, New York, N. Y.).....Capt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.).....Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (Chico, Cal.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.  
 Risting, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.  
 Martin, J. W., Holstein (Seymour, Ind.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

#### Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.  
 Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.  
 Gittler, Ludwig, Fairfield (APO 1001, New York, N. Y.).....Lt. Col., A.U.S.  
 Graber, H. E., Fairfield Galesburg, Ill.....Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

#### Johnson County

Agnew, J. W., Iowa City (Trinidad, Colo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.

Boiler, W. F., Iowa City (Fort Leonard Wood, Mo.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.

Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (San Francisco, Cal.).....Lt., U.S.N.R.  
 Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.  
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.

Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Camp Lejeune, N. Car.).....Lt., U.S.N.R.  
 Dorner, R. A., Iowa City (APO 534, New York, N. Y.).....Capt., A.U.S.

Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Emmons, M. B., Iowa City (Abilene, Texas).....Capt., A.U.S.  
 Flann, Ellis, Iowa City (Fort Jackson, S. Car.).....1st Lt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.

Fourt, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.  
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.

Garlinghouse, R. O., Iowa City (APO 302, New York, N. Y.).....Major, A.U.S.  
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.  
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.

Hessin, A. L., Iowa City (APO 452, New York, N. Y.).....Capt., A.U.S.  
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.

January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.  
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.  
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.

Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Longwell, F. H., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.

Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagyfy, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.

Parkinson, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.  
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.

Sells, R. L., Jr., Iowa City (Chico, Cal.).....Capt., A.U.S.  
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.

Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.

Stump, R. B., Iowa City (Fort Leonard Wood, Mo.).....Capt., A.U.S.  
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.  
 Trapasso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.  
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.).....Capt., A.U.S.  
 Vest, W. M., Iowa City (Fort Missoula, Mont.).....Capt., A.U.S.  
 Ward, R. H., Iowa City (Cherry Point, N. C.).....Lt. Comdr., U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 923, San Francisco, Cal.).....1st Lt., A.U.S.  
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

#### Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.

Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.

Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.

Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.

Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.

Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Hendricks, A. B., Iowa City (Klamath Falls, Ore.).....Lt., U.S.N.  
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.

Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.  
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.  
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.

Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.  
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.

Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.  
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.

McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Moen, B. H., Iowa City.....

Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.

Pulliam, R. L., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.  
 Randall, C. G., Iowa City.....

Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.  
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.

Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.

Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.

Shapiro, S. I., Iowa City.....

Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.  
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.  
 Skouge, O. T., Iowa City.....

Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.  
 Waters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.

Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.  
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.  
 Willumsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.

Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.  
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.

Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

#### Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.  
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.  
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.

Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.  
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.).....

#### Kossuth County

Clapsaddle, D. W., Burt (APO 519, New York, N. Y.).....Capt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Williams, R. L., Lakota (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) ..... Capt., A.U.S.  
 Cooper, R. E., Keokuk (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.  
 Johnstone, A. A., Keokuk (Camp Fannin, Texas) ..... Col., A.U.S.  
 McKee, T. L., Keokuk (APO 928, San Francisco, Cal.) ..... Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.  
 Rankin, J. R., Keokuk (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) ..... Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) ..... Capt., A.U.S.  
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) ..... Major, A.U.S.  
 Berney, P. W., Cedar Rapids (San Francisco, Cal.) ..... Capt., A.U.S.  
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.) ..... Capt., A.U.S.  
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) ..... Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) ..... Capt., A.U.S.  
 Courter, W. O., Springville (APO 464, New York, N. Y.) ..... Major, A.U.S.  
 Crew, P. I., Marion (Monroe, La.) ..... Capt., A.U.S.  
 Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) ..... Major, A.U.S.  
 Dunn, F. C., Cedar Rapids (Kearney, Nebr.) ..... Major, A.U.S.  
 Gearhart, Merriam, Springville (Phoenixville, Pa.) ..... Major, A.U.S.  
 Halpin, L. J., Cedar Rapids (Atlanta, Ga.) ..... Major, A.U.S.  
 Hecker, J. T., Cedar Rapids (Gardner Field, Cal.) ..... Capt., A.U.S.  
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Keith, J. J., Marion (Menlo Park, Cal.) ..... Major, A.U.S.  
 Kieck, E. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Kruckenberg, W. G., Mount Vernon (Portsmouth, Va.) ..... Lt., U.S.N.R.  
 Leedham, C. L., Springville (APO 465, New York, N. Y.) ..... Col., A.U.S.  
 Locher, R. C., Cedar Rapids (Camp Swift, Texas) ..... Major, A.U.S.  
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) ..... Capt., A.U.S.  
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) ..... Major, A.U.S.  
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) ..... Major, A.U.S.  
 Meffert, C. B., Cedar Rapids (APO 9787, New York, N. Y.) ..... Major, A.U.S.  
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) ..... Major, A.U.S.  
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) ..... 1st Lt., A.U.S.  
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) ..... Major, A.U.S.  
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Lt. Comdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (APO 5799, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stansbury, J. R., Cedar Rapids (APO 941, Seattle, Wash.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 34, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) ..... Lt. Comdr., U.S.N.

**Louisa County**

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Lucas County**

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

**Lyon County**

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Major, A.U.S.  
 †Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Ofag 64, Germany) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Madison County**

Boden, H. N., Truro (Fresno, Cal.) ..... Chesnut, P. F., Winterset (Salem, Ore.) ..... Capt., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Lt. Col., A.U.S.

**Mahaska County**

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) ..... Major, A.U.S.  
 Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Mare Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) ..... Capt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) ..... Capt., A.U.S.

**Marion County**

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) ..... Major, A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Houston, Texas) ..... 1st Lt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

**Marshall County**

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) Major, A.U.S.  
 Meyer, M. G., Marshalltown (Ft. Geo. Meade, Md.) Major, A.U.S.  
 Noonan, J. J., Marshalltown (APO 928, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (APO 520, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Sterman, J. J., Marshalltown (Portland, Ore.) ..... Capt., A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (APO 937, Seattle Wash.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Mills County**

DeYoung, W. A., Glenwood (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
 Margaret, E. C., Glenwood (APO 462, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 230, New York, N. Y.) ..... Capt., A.U.S.

**Mitchell County**

Culbertson, R. A., St. Ansgar (Camp Campbell, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.  
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

**Monona County**

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... Capt., A.U.S.  
 Anderson, S. N., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 928, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gaukel, L. A., Onawa (Fort Riley, Kan.) ..... Capt., A.U.S.  
 †Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Lewis, Wash.) ..... Major, A.U.S.  
 Wainwright, M. T., Mapleton (Ft. Leonard Wood, Mo.) ..... Capt., A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

**Monroe County**

Gilliland, C. H., Albia (Quonset Point, R. I.) ..... Lt., U.S.N.R.  
 Heilmann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Major, A.U.S.  
 Smith, R. A., Albia (New Cumberland, Pa.) ..... Capt., A.U.S.

**Montgomery County**

Bastron, H. C., Red Oak (APO 964, San Francisco, Cal.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

**Muscatine County**

Ady, A. E., West Liberty (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Capt., A.U.S.  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO, Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) ..... Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Lt. Col., A.U.S.



**O'Brien County**

Getty, E. B., Primghar (APO 117, New York, N. Y.) ..... Capt., A.U.S.  
 Hayne, W. W., Paullina (APO 638, New York, N. Y.) ..... Capt., A.U.S.  
 Moen, S. T., Hartley (APO 689, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

**Osceola County**

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

**Page County**

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Boessingham, E. N., Clarinda (Fort Ord, Cal.) ..... Major, A.U.S.  
 Bunch, H. McK., Shenandoah (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 †Burdick, F. D., Shenandoah (APO, New York, N. Y.) ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (Denver, Colo.) ..... Major, A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) ..... Capt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

**Palo Alto County**

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Plymouth County**

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Denver, Colo.) ..... 1st Lt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... Capt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

**Pocahontas County**

Blair, F. L., Jr., Fonda (San Antonio, Texas) ..... Lt., U.S.N.R.  
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.

**Polk County**

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Major, A.U.S.  
 Bates, M. T., Des Moines (Corona, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Riverside, Cal.) ..... Major, A.U.S.  
 Brown, A. W., Des Moines (Camp Grant, Ill.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (Fort Bliss, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 †Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef-Offizierlager XXI B, Deutschland [Allemagne]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (Concordia, Kan.) ..... 1st Lt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
 Connell, J. R., Des Moines (Phoenixville, Pa.) ..... Major, A.U.S.  
 Corn, H. H., Des Moines (St. Louis, Mo.) ..... Capt., A.U.S.  
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) ..... Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) ..... 1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Ft. Snelling, Minn.) ..... 1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 628, New York, N. Y.) ..... Major, A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas) ..... Capt., A.U.S.  
 Ellis, H. G., Des Moines (APO 16242A, San Francisco, Cal.) ..... Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas) ..... Major, A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Fracasse, John, Des Moines ..... 1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines .....  
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) ..... Major, A.U.S.  
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.) ..... Capt., A.U.S.  
 Goldberg, Louie, Des Moines (APO 9764, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gordon, A. M., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

Greek, L. M., Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Gurau, H. H., Des Moines (Santa Ana, Cal.) ..... Capt., A.U.S.  
 Haines, D. J., Des Moines (APO 708, San Francisco, Cal.) ..... Capt., A.U.S.  
 Harris, D. D., Des Moines (Gulfport, Miss.) ..... Lt. Comdr., U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.) ..... 1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 James, A. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Los Angeles, Cal.) ..... Capt., A.U.S.  
 Kelley, E. J., Des Moines (Columbus, Ohio) ..... Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.) ..... Lt. Col., A.U.S.  
 Kirch, W. A. W., Des Moines (Seattle, Wash.) ..... Lt. Comdr., U.S.N.R.  
 Klocksiem, H. L., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Kotke, E. E., Des Moines (Temple, Texas) ..... Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.) ..... 1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Lederman, James, Des Moines ..... 1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.) ..... Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (APO 5444, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) ..... 1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.) ..... 1st Lt., A.U.S.  
 Matheson, J. H., Des Moines (San Leandro, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa) ..... Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.) ..... Major, A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines ..... 1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) ..... Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Morden, R. P., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Mumma, C. S., Des Moines (Los Angeles, Cal.) ..... Major, A.U.S.  
 Murphy, J. H., Des Moines (Barstow, Cal.) ..... Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.) ..... Major, A.U.S.  
 Noun, L. J., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Noun, M. H., Des Moines (APO 514, New York, N. Y.) ..... Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.) ..... 1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.) ..... Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.) ..... Capt., A.U.S.  
 Penn, E. C., West Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Pfeiffer, E. P., Des Moines (Springfield, Mo.) ..... Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corona, Cal.) ..... Lt., U.S.N.R.  
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Powell, L. D., Des Moines (Oceanside, Cal.) ..... Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.) ..... Major, A.U.S.  
 Priestley, J. B., Des Moines (Camp Crowder, Mo.) ..... Major, A.U.S.  
 Purdy, W. O., Des Moines (APO 5935, New York, N. Y.) ..... Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.) ..... Major, A.U.S.  
 Robinson, V. C., Des Moines (Tampa, Fla.) ..... Major, A.U.S.  
 Rotkow, M. J., Des Moines (Ft. Benj. Harrison, Ind.) ..... Capt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.  
 Shepherd, L. K., Des Moines (APO New York, N. Y.) ..... Major, A.U.S.  
 Shiffer, H. K., Des Moines (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.) ..... 1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (New Orleans, La.) ..... 1st Lt., U.S.P.H.S.  
 Smead, H. H., Des Moines (APO 595, New York, N. Y.) ..... Capt., A.U.S.  
 Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.) ..... Capt., A.U.S.  
 \*Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.) ..... Capt., A.U.S.  
 Snyder, G. E., Grimes (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
 Sohm, H. A., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

Sorensen, R. M., Des Moines (Topeka, Kan.)...Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.)...Lt. Comdr., U.S.N.R.  
 Stearns, A. B., Des Moines (Denver, Colo.)...Major, A.U.S.  
 Stickler, Robert, Des Moines (Fort Benning, Ga.)...Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.)...Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (APO 403, New York, N. Y.)...Major, A.U.S.  
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.)...Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas)...Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.)...1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (APO 515, New York, N. Y.)...Capt., A.U.S.  
 Vaubel, E. K., Des Moines (Silver Spring, Md.)...Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.)...1st Lt., A.U.S.  
 Willett, W. M., Des Moines (APO 507, New York, N. Y.)...Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.  
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.)...Capt., A.U.S.

#### Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.)...Major, A.U.S.  
 Cogley, J. P., Council Bluffs (Springfield, Mo.)...Lt. Col., A.U.S.  
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.)...Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Pensacola, Fla.)...Lt. Comdr., U.S.N.R.  
 Floersch, E. B., Council Bluffs (Bremerton, Wash.)...Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Fleet PO, San Francisco, Cal.)...Lt., U.S.N.R.  
 Jensen, A. L., Council Bluffs (Temple, Texas)...Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.)...Lt., U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.)...Capt., A.U.S.  
 Limbert, E. M., Council Bluffs (APO 9907, New York, N. Y.)...Capt., A.U.S.  
 Maiden, S. D., Council Bluffs (Camp Hood, Texas)...Major, A.U.S.  
 Martin, L. R., Council Bluffs (Santa Barbara, Cal.)...Capt., A.U.S.  
 Mathiasen, H. W., Neola (Alexandria, La.)...Capt., A.U.S.  
 Moskovitz, J. M., Council Bluffs (APO 403, New York, N. Y.)...Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.)...Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (Springfield, Mo.)...Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.)...Capt., A.U.S.  
 Treynor, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.)...Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (APO 230, New York, N. Y.)...Capt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.)...A.U.S.  
 Wurl, O. A., Council Bluffs (APO 871, New York, N. Y.)...Capt., A.U.S.

#### Poweshiek County

Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.)...Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.)...1st Lt., A.U.S.  
 Korfmacher, E. S., Grinnell (San Francisco, Cal.)...Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco, Cal.)...Capt., A.U.S.  
 Parish, J. R., Grinnell (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.  
 Somers, P. E., Grinnell (St. Louis, Mo.)...1st Lt., A.U.S.

#### Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.)...Major, A.U.S.

#### Sac County

Bassett, G. H., Sac City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 1001, New York, N. Y.)...Capt., A.U.S.  
 Evans, W. L., Sac City (APO 9212, New York, N. Y.)...Capt., A.U.S.  
 Klocksiem, R. G., Odebolt (San Diego, Cal.)...Lt., U.S.N.R.  
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.)...Lt. Col., A.U.S.

#### Scott County

Baker, R. W., Davenport (APO 511, New York, N. Y.)...Capt., A.U.S.  
 Balzer, W. J., Davenport (Vancouver, Wash.)...Capt., A.U.S.  
 Bishop, J. F., Davenport (APO 729, Seattle, Wash.)...Capt., A.U.S.  
 Block, L. A., Davenport (Cambridge, Ohio)...Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York, N. Y.)...Capt., A.U.S.  
 Boyer, U. S., Davenport (Rock Island, Ill.)...Lt. Col., A.U.S.  
 Brown, M. J., Davenport (Camp Grant, Ill.)...Major, A.U.S.  
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.)...1st Lt., A.U.S.  
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.)...Capt., A.U.S.  
 Coleman, Tom, Davenport (APO 230, New York, N. Y.)...Capt., A.U.S.  
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.)...Capt., A.U.S.

Decker, C. E., Davenport (APO 321, San Francisco, Cal.)...Major, A.U.S.  
 Evans, H. J., Davenport (APO 9826, New York, N. Y.)...Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.)...Major, A.U.S.  
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.)...Capt., A.U.S.  
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.)...Major, A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.)...Capt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Barkeley, Texas)...Major, A.U.S.  
 Kimberley, L. W., Davenport (Hines, Ill.)...Capt., A.U.S.  
 Krakauer, Max, Davenport (Camp Ellis, Ill.)...Capt., A.U.S.  
 Kuhl, A. B., Jr., Davenport (El Paso, Texas)...1st Lt., A.U.S.  
 LaDage, L. H., Davenport (APO 229, New York, N. Y.)...Major, A.U.S.  
 Lorfeld, G. W., Davenport (Columbus, Ohio)...Capt., A.U.S.  
 Marker, J. I., Davenport (Camp Barkeley, Texas)...Col., M.R.C.  
 McMeans, T. W., Davenport (APO 557, New York, N. Y.)...Capt., A.U.S.  
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.)...Capt., A.U.S.  
 Perkins, R. M., Davenport (Carlisle Barracks, Pa.)...1st Lt., A.U.S.  
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.)...Capt., A.U.S.  
 Shorey, J. R., Davenport (APO 647, New York, N. Y.)...Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 230, New York, N. Y.)...Capt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.)...Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (APO 322, San Francisco, Cal.)...Capt., A.U.S.  
 Weinberg, H. B., Davenport (APO 5587, San Francisco, Cal.)...Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.)...Capt., A.U.S.

#### Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.)...Capt., A.U.S.  
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.)...Lt. Comdr., U.S.N.R.

#### Sioux County

Gleysteen, R. R., Alton (Silver Spring, Md.)...Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (APO 572, New York, N. Y.)...Capt., A.U.S.  
 Larson, M. O., Hawarden (Camp Bowie, Texas)...Major, A.U.S.  
 Oelrich, A. M., Hull (APO New York, N. Y.)...1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.)...1st Lt., A.U.S.

#### Story County

Conner, J. D., Nevada (APO 708, San Francisco, Cal.)...Capt., A.U.S.  
 Fellows, J. G., Ames (Camp Breckenridge, Ky.)...Major, A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.)...Lt., U.S.N.R.  
 McFarland, J. E., Ames (Farragut, Idaho)...Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (APO 17050, New York, N. Y.)...Major, A.U.S.  
 Sperow, W. B., Nevada (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamogordo, N. Mex.)...Major, A.U.S.  
 Wall, David, Ames (Ft. Dix, N. J.)...1st Lt., A.U.S.

#### Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.)...Capt., A.U.S.  
 Boller, G. C., Traer (Camp Carson, Colo.)...Capt., A.U.S.  
 Dobias, S. G., Chelsea (Vancouver, Wash.)...Capt., A.U.S.  
 Havlik, A. J., Tama (San Diego, Cal.)...Lt., U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.)...Lt., U.S.N.R.  
 Standefer, J. M., Tama (Des Moines, Iowa)...Lt., U.S.N.R.

#### Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.)...1st Lt., A.U.S.

#### Union County

Beatty, H. G., Creston (New Orleans, La.)...1st Lt., A.U.S.  
 Paragas, M. R., Creston (APO 503, San Francisco, Cal.)...Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.)...Capt., A.U.S.

#### Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.)...1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO 366, New York, N. Y.)...Lt. Col., A.U.S.  
 Giffilan, C. D. N., Eldon (Battle Creek, Mich.)...Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.)...Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (Camp Butler, N. C.)...Capt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa...Capt., A.U.S.  
 Prewitt, L. H., Ottumwa (Atlantic City, N. J.)...Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas)...Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.)...Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego, Cal.)...Lt. Comdr., U.S.N.R.  
 Wolfe, W. C., Ottumwa (Fleet PO, San Francisco, Cal.)...Lt. (jg) U.S.N.R.

#### Warren County

Fulgrabe, E. A., Indianola (San Diego, Cal.)...Lt., U.S.N.R.  
 Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.)...Capt., A.U.S.



Shaw, E. E., Indianola (APO 834, New Orleans, La.) ..... Capt., A.U.S.  
 Trueblood, C. A., Indianola (APO 871, New York, N. Y.) ..... Capt., A.U.S.

#### Washington County

Boice, C. L., Washington (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 Mast, T. M., Washington (Portland, Ore.) ..... Lt., U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.) 1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ware, S. C., Kalona (APO 15275, New York, N. Y.) ..... Capt., A.U.S.

#### Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) ..... Capt., A.U.S.

#### Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.) ..... Capt., A.U.S.  
 Burch, E. S., Dayton (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Burleson, M. W., Fort Dodge (Pasadena, Cal.) ..... 1st Lt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa) ..... Major, A.U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.) ..... Lt. Comdr., U.S.N.R.  
 Joyner, N. M., Fort Dodge (Brooklyn Field, Ala.) ..... Lt. Comdr., U.S.N.R.  
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 Larsen, H. T., Fort Dodge (Pensacola, Fla.) ..... Lt., U.S.N.R.  
 Shrader, J. C., Fort Dodge (Fort Jackson, S. Car.) ..... Major, A.U.S.  
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) ..... Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.) ..... Capt., A.U.S.

#### Winneshiek County

Fritchen, A. F., Decorah (Treasure Island, Cal.) ..... Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Howard, W. H., Decorah ..... Capt., A.U.S.  
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.  
 Van Besien, G. J., Decorah (APO New York, N. Y.) ..... 1st Lt., A.U.S.

#### Woodbury County

Bettler, P. L., Sioux City (APO 962, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Blackstone, M. A., Sioux City (Camp Stoneman, Cal.) ..... Capt., A.U.S.  
 Boe, Henry, Sioux City (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 †Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) ..... Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) ..... Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa) ..... 1st Lt., A.U.S.  
 Down, H. L., Sioux City (APO 758, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Elson, V. J., Danbury (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
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 Harris, D. M., Sioux City (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Sioux City, Iowa) ..... Capt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.) ..... Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.) ..... Major, A.U.S.  
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) ..... Capt., A.U.S.  
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 Krigsten, W. M., Sioux City (Springfield, Mo.) ..... Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (APO 63, New York, N. Y.) ..... Major, A.U.S.  
 Martin, R. F., Sioux City (APO 652, New York, N. Y.) ..... Capt., A.U.S.  
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 Mugan, R. C., Sioux City (APO 210, New York, N. Y.) ..... Capt., A.U.S.  
 Osincup, P. W., Sioux City (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.) ..... Capt., A.U.S.  
 Reeder, J. E., Jr., Sioux City (APO 526, New York, N. Y.) ..... Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.) ..... Major, A.U.S.  
 Schwartz, J. W., Sioux City (Camp Crowder, Mo.) ..... Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Ephrata, Wash.) ..... Major, A.U.S.

#### Worth County

Westly, G. S., Manly (APO 4580, San Francisco, Cal.) ..... Major, A.U.S.

#### Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.) ..... Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Spokane, Wash.) ..... Capt., A.U.S.  
 Gorrell, R. L., Clarion (Brooklyn, N. Y.) ..... P.A. Surg., U.S.P.H.S.  
 Leinbach, S. P., Belmond (Farragut Air Base, Idaho) ..... Lt., U.S.N.R.  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.

(\*) Reported missing in action.

(†) Reported killed in action.

(‡) Reported prisoner of war.

### MEETING OF THE OMAHA MID-WEST CLINICAL SOCIETY

The Omaha Mid-West Clinical Society will hold its twelfth annual sessions in Omaha, October 23 to 27, inclusive. Headquarters will be at Hotel Paxton.

It is believed that this year's program will compare favorably with those of the past, the guest speakers including such well known physicians as Dr. Carl E. Badgley, Ann Arbor; Lt. Col. James B. Brown, M.C., Phoenixville, Pennsylvania; Dr. Thomas Findley, New Orleans; Dr. Paul H. Holinger, Chicago; Dr. Alson R. Kilgore, San Francisco; Dr. C. Guy Lane, Boston; Dr. Clifford B. Lull, Philadelphia; Dr. Nolan D. C. Lewis, New York City; Dr. Edward H. Rynearson, Rochester, Minnesota; Major Albert C. Sabin, M.C., Princeton, New Jersey; and Dr. L. R. Sante, St. Louis.

Symposia on Diabetes, The Place of X-Ray and Radioactive Substances in the Treatment of Disease, and Acute Upper Respiratory Infections will be presented Wednesday, October 25, and on Friday, October 27, personnel of the United States Army Medical Corps will present a symposium on War Medicine and Surgery. The five-day assembly might be described as an intensive refresher course, each day from nine in the morning until ten in the evening being taken up with lectures, clinics and symposia. Round table discussions on live topics will follow all luncheons and dinners. Plans for scientific, moving picture, and technical exhibits are complete.

All medical officers of the United States Army, Navy and Public Health Service will be admitted without the payment of the usual five dollar registration fee.

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# WOMAN'S AUXILIARY NEWS

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## WHY WORRY ABOUT CANCER\*

EDMUND G. ZIMMERER, M.D., M.P.H., Director  
Division of Cancer Control  
Iowa State Department of Health

The increasing death rate from cancer throughout the nation naturally creates some public concern which is reflected in the interest and activity of legislators and public health officials. While efforts at cancer control are desirable and justified, there is actually no cause for general alarm in this increase which is more apparent than real.

While it is true that more and more people succumb to malignant disease, this is not due to any wider distribution of an old, or to any new infective agent, or to any variation of our mode of living. It can be attributed mainly to the fact that there are more people reaching the age at which they are susceptible to cancer, diabetes, and certain other degenerative diseases of middle life and old age.

In 1870, the median age of Iowa's population was about eighteen and one-half years. Today it is well over thirty years, as compared with a median age for the United States at just over twenty-six years. Thus, whereas in 1870 more than three-fourths of Iowa's population was under thirty-four years old, today almost half are people past thirty-five. Less than three per cent of the cancer deaths in our state in 1941 occurred in individuals under thirty-five years of age, and more than half the people who die of cancer in Iowa are sixty-five or over.

That this is not mere theory is proved by adjusting the crude death rate by methods well known to statisticians, to a standard population thus eliminating the influence of age and other factors. When this is done, the increase in the adjusted cancer death rate is shown to be statistically insignificant in the past ten years.

Some of the increase in cancer also can be ascribed to the cancer consciousness inspired by education in both professional and lay circles and to the more refined diagnostic technics which enable the physician to discover more cancers which a few years ago would have been missed.

These statistics, however comforting to public health authorities, bring little consolation to the victims of the disease. Yet, they, too, may derive hope from the fact that even with the knowledge

we now have and the means presently available it is estimated that from 1,000 to 1,500 of the more than 3,500 deaths occurring in our state annually could be prevented. But such prevention depends upon the personal attitude and effort of the patient. The individual himself must be alert to the early signs of cancer and know the importance of taking immediate and proper steps. It is not only a matter of absorbing medical information. Our knowledge of cancer must be motivating. That is, it must impel us to action.

True, cancer is generally curable only while it is a local process and before it has extended to other tissues or organs so that we commonly say that it must be treated early. However, that is true also of most other diseases. Pneumonia, appendicitis, and diphtheria must be recognized and treated even earlier than cancer to insure cure. But cancer is so insidious that it doesn't look bad and often there is little or no pain so that it lends itself to dangerous delay.

The treatment of cancer has made amazing advances in recent years, especially in cancers which afflict women. Unfortunately these methods are often applied too late to offer any hope. Even at that there are countless cures about which the public seldom hears while cancer deaths are always publicized. At worst, even when cure can't be effected, treatment prolongs life, relieving suffering, pain and hemorrhage and there is always hope. It is worth trying and trying early.

Many people who haven't any signs of cancer worry about its possibility and wonder what can be done to prevent it. While there is no prophylactic such as a vaccine or other immunizing agent, much can be done in its prevention if we understand how cancer develops.

At least two factors are involved in cancer production—an intrinsic and one or more extrinsic factors. By the intrinsic factor is meant the susceptibility of the individual or perhaps even of the cell in which cancer begins. We have no way of detecting or measuring this. Its existence is proved by animal experimentation. Strains of mice have been bred which are apparently immune to cancer so that cancer can not even be successfully transplanted. Other strains have been bred of which a large percentage develops spontaneous tumors and in others of which cancer can be easily produced artificially.

\*From the January, 1944, issue of the Bulletin of Women's Field Army, Iowa Division.



While these differences have been produced by inbreeding and so are apparently hereditary, they can be modified. For instance, if immune mice are allowed to suckle susceptible foster mothers they apparently lose their immunity.

Even if this susceptibility is eventually shown to be genetically transmitted it must be remembered that it is brought about only by generations of inbreeding. Since such inbreeding does not occur in the human race, "it is," as Doctor Little says, "both unwise and unnecessary for individuals to consider (cancer heredity) a personal problem."

Since we can neither detect, measure or influence the intrinsic factor or susceptibility by any known means we must rely for prevention upon avoidance of the extrinsic factors remembering that both are necessary. If either is absent, cancer can not develop.

The extrinsic factors, or inciting causes of cancer, are those external agents long recognized as playing an important role in malignancy. They may be chemical such as the application of tar or any one of some fifty or more substances, which when applied to a *susceptible* mouse, produce cancer. Or again, they may be physical agents such as certain light rays, some of which are present even in sunlight and which incite cancer of the skin in *susceptible* individuals. Or they may be such agencies as long continued irritation, chronic infections, and inflammation or an excess of certain substances in the body fluids such as the sexual hormones. Recognition and avoidance of such influences as far as possible in our occupation and habits is in the light of our present knowledge our best prophylaxis against cancer.

Cancer, like infection, must find a suitable locus. It doesn't find this in normal tissue but it frequently does find fertile soil in scar tissue, in otherwise benign growths, and in other abnormal types of tissue. For this reason, people past middle life should have a medical diagnosis of any scaling, swelling, thickening, or other abnormality of the skin or other tissue of the body.

Worry and discomforting doubts are best alleviated by knowledge. Our best remedy lies in seeking competent, ethical medical advice early. If we find we haven't cancer, it is worth all the time, effort and money expended to be sure, and even if it is cancer, there is a good chance for cure if we don't delay.

### BURMA SURGEON

We are sometimes prone to forget that Christianity is often spread by means of good roads, schools, hospitals, and the proper administration of an anesthetic or antitoxin rather than by Bible reading and hymn singing. Dr. Gordon S. Seagrave makes this fact extremely vivid in his fine book, *Burma Surgeon*. He is the descendant of a long line of Baptist missionaries, and after graduation at Johns Hopkins he deliberately chose the Shan states in which to practice. In the first hundred pages of the book, the reader is startled by his

versatility. He is, by turns, a doctor, preacher, teacher, architect, stone mason, linguist, trucker, plumber, and carpenter.

He not only trained his wife to be an expert medical assistant, but he trained hundreds of native girls to be first-class nurses who were capable of taking much more responsibility than is allowed in this country because "necessity is the mother of invention." After he had erected four hospitals (also in the first hundred pages), we quit counting, but were no less amazed at his extensive exploits throughout the rest of the book.

Long before the present war broke, Dr. Seagrave had been waging his private war among the natives on dysentery, malaria, blackwater fever, the plague, and performing surgery with a wastebasketful of discarded instruments which he salvaged before leaving Johns Hopkins. Surgery was always a formidable foe for the doctor. In his own words, Dr. Seagrave was "scared to death," but the night before an operation he would take down his texts and study diligently, would be profusely nauseated, and then go to bed. He would rise the next morning in the same condition, but march straight to his task because he never admired "a quitter." Pioneering is not dead after all. Although he had failures, his successes more than compensated.

Dr. Seagrave witnessed the building of the Burma Road and the necessary airplane factories. He served in a medical capacity with the Chinese Army and the British Army. When the Americans arrived, he was commissioned a major in the U. S. Medical Corps. Besides operating in only his shorts (the thermometer sometimes registered 136) with blood splattered from shoulders to feet, fighting off bugs, mosquitoes, malaria, and suffering with foot sores that would not heal, dodging bombs, and operating by the light of flaming towns, he managed to keep a day-by-day account of his war activities. This account forms the latter part of *Burma Surgeon*.

The startling fact is not that Dr. Seagrave handled the situations in which he was placed with so much acumen, but that he is recognized as a fine medical man by those who know. This tribute is not always paid to medical missionaries. And in spite of the fact that the book is full of war, it is not a war book, but a book of healing and peace. It is the story of a man who has preached Christ with drugs and surgery and personal example.

Mrs. K. M. Chapler, Dexter

### SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 2:05 p. m.

WSUI—Thursdays at 9:00 a. m.

September 6- 7	Plastic Surgery	Walter Kirch, M.D.
September 13-14	Abdominal Pain	Arthur W. Shafer, M.D.
September 20-21	Rheumatic Fever	Benjamin C. Hamilton, Jr., M.D.
September 27-28	Anemia	Werner P. Pelz, M.D.

## SOCIETY PROCEEDINGS

### PERSONAL MENTION

Major John Connell of the Medical Corps of the Army of the United States, son of Dr. John Connell of Des Moines, has been awarded the Silver Star for gallantry in action in Italy last fall. The medal was presented officially at Valley Forge General Hospital in July, shortly after the doctor had received his majority. Following is the citation:

"For gallantry in action in October 1943, in Italy. During an attack by an Infantry Regiment over a river, Captain Connell followed the infantry across the river and by his own ingenuity organized routes of evacuation of battle casualties. All through the attack which lasted two days Captain Connell supervised the proper function of new routes and constantly reconnoitered to improve, shorten or hasten the evacuation even though the routes were under enemy fire. He made several trips across the river which was still under enemy observation and heavy artillery and mortar fire. Undoubtedly the ingenuity and perseverance of Captain Connell, and the calm and courageous manner in which he performed his duties, saved the lives of many battle casualties and was instrumental in their being evacuated more quickly from the front lines. His coolness under fire and devotion to duty were exemplary and a credit to the Armed Forces of the United States."

Dr. Douglas H. Brown, formerly of Davenport, has located in Forest City for the practice of medicine and surgery. Dr. Brown was on active duty as a Captain in the Medical Corps of the Army of the United States for fifteen months and was placed on inactive status last June.

Dr. Ray R. Harris of Dubuque spoke before the Lions Club of that city at a ladies' night meeting Wednesday, August 16, at the Chamber of Commerce Building. The topic of his discussion was The Fight Against the Socialization of Medicine. Dr. John Thorson, president of the Dubuque County Medical Society, conducted a round table discussion on medical socialization following Dr. Harris's address.

Dr. Earl C. Kepler of Greene has announced that he has accepted a position on the staff of the McCleary Clinic Hospital in Excelsior Springs, Missouri. Dr. Kepler has been located in Greene for several years and has practiced in Butler County for the past seventeen years.

Dr. Elizabeth Smith Kennedy of Oelwein was the guest speaker of the Rotary Club of that city Monday, July 24. Dr. Kennedy presented highlights of the recent Republican National Convention in Chicago.

### DEATH NOTICES

Jay, Leon Downie, of Waverly, aged fifty-eight, died suddenly August 8 of cerebral hemorrhage. He was graduated in 1910 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Bremer County and Iowa State Medical Societies.

Judd, Addison LeClare, of Kanawha, aged eighty-one, died July 27 following a long illness. He was graduated in 1902 from Keokuk Medical College, College of Physicians and Surgeons, and at the time of his death was a life member of the Hancock-Winnebago and Iowa State Medical Societies.

Runyon, John H., of Seymour, aged seventy-seven, died suddenly July 30 of a heart attack. He was graduated in 1890 from the College of Physicians and Surgeons at Keokuk, and at the time of the death was a member of the Wayne County and Iowa State Medical Societies.

### WARTIME MEETING AT SCHICK GENERAL HOSPITAL

(Continued from page 409)

of war medicine from the time of Homer, when the battle mortality rate was 77.6 per cent, down to the Normandy Invasion. He mentioned the use of plasma, sulfa drugs, penicillin, treatment of wounds and burns, nutritional studies, aviation medicine, and neuropsychiatric treatments as some of the outstanding advancements.

Dr. M. C. Hennessy, President of the Iowa State Medical Society closed the meeting by praising the hospital officials and the methods used, and asserted that "We can go back and tell our friends and neighbors back home they needn't worry about treatment given boys who may be injured or wounded."

So far as is known, this is the first time that a State Medical Society has held a meeting in a General Army Hospital. The effect of the meeting on the staff of the hospital was stimulating and it is their hope that other similar meetings can be arranged in the future. Since a great number of the patients in Schick General Hospital are Iowa soldiers, and since many of them will be under the care of Iowa physicians, it was important that the members of the State Society acquaint themselves with the hospital management of their patients. The most important effect of the meeting, however, was on the patients themselves. They realized that the medical profession throughout the entire state is interested in their welfare. Colonel Winn and his entire staff are grateful, therefore, to the large number of busy practitioners who devoted their time to visit the institution.

William J. Carrington, Lt. Col., M.C.



# HISTORY OF MEDICINE IN IOWA

*Edited by the Historical Committee*

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## Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part I

### INTRODUCTORY HISTORY—THE LOUISIANA PURCHASE

The year 1803 is a memorable one, not alone to those of us who live in the heart of America, our great food factory, but to all the free and liberty-loving peoples of the earth. The boundaries of the United States, at this crucial period in our national life, had been established by the treaty of peace with Great Britain at the close of the Revolutionary War. The territory embraced extended from the Atlantic Ocean on the east to the Mississippi River on the west; and from the Great Lakes to Florida north and south. From 1763 to 1801, Spain not only claimed and controlled Florida, which extended from the Atlantic Ocean to the Mississippi, but across that river to the west and north—from Mexico to the Dominion of Canada. By the restoration of peace in Europe in 1801, Spain was forced to cede to France all of this territory west of the Mississippi.

During the years of settlement and development of the western part of the United States, American commerce down the Mississippi had been unmolested. Trading was cleared for the seven seas through the Port of New Orleans, and a large storage house was maintained there. Spain, angered by the loss of the Louisiana Territory to the French, resorted to a retaliatory act in October, 1802, by suspending all river commerce through New Orleans, which city the French treaty had permitted her to retain. The loss of their storage depot and the suppression of river commerce, which at this time carried three-eighths of the young nation's foreign trade, aroused the settlers to a fighting rage. They demanded that Congress take such action as would restore to them the free and unrestricted river traffic to the sea. Some members of Congress were in favor of the

proposition; many, fearing complications that might lead to war, opposed it.

Jefferson, then President, and the farsighted friend of the common people, did not wait long for Congress to act, but took immediate steps to restore this outlet to the sea even if it should lead to war.

For the first time in many years all the nations of Europe were at peace. Napoleon was master on the land. Britain manned the ocean lanes. Therefore, the treaty between France and Britain was little more than a battle truce, because England, contrary to Napoleon's desires, maintained a threatening attitude by continuing her preparations for another war. The British Navy had kept the French fleet bottled up in her home ports for so many years that many of her colonial possessions had either rebelled or were in a rebellious mood. With the release of his fleet, Napoleon was determined not only to recover his lost possessions, but to expand his Empire as well. He dispatched a fleet at once to the Caribbean Sea with instructions to recover the island of St. Domingo, after which his soldiers were to establish military control over his newly acquired territory of Louisiana—a campaign of conquest with which England, he assumed, would not be likely to interfere. But the black people of St. Domingo repulsed the French fleet, which occasioned considerable delay during which, as before mentioned, Spain blocked navigation on the Mississippi River by closing her port at New Orleans. At this point, Jefferson took a hand. He assured Napoleon, through his envoys in Paris, of America's gratitude to the French people for the aid they had rendered in the trying days of our struggle for freedom. But he told them frankly of the bitterness of feeling

which would surely arise between the two nations should the French people attempt to control the Mississippi and the Gulf of Mexico. In short, he told them that no nation would be permitted to block the Mississippi, or in any way interfere with our shipping in the ocean lanes beyond. If, however, Napoleon still persisted in his intentions to colonize the Louisiana Territory, our President advised and urged his aid in the immediate transfer to us, from Spain, of the Floridas for which, of course, we were prepared to pay a reasonable sum. Finally, should Napoleon ignore our pleas and spurn our demands for a peaceful solution of the troublesome controversy, he was to be bluntly informed that, although we did not desire to do so, we would be compelled to ally ourselves with the British Empire and force an outlet to the sea.

Well, everyone knows the story from there on: England declared war on France. Napoleon, knowing well the superiority of the British Navy and sensing the gravity of the situation, resolved to retain the friendship of the American people by abandoning for all time his dreams of colonization on the American continent. He told this to Jefferson's envoys in France. And to back up his pledge and promise of eternal friendship for America, he proposed to sell to us his priceless (and almost boundless) Louisiana Territory for the sum of fifteen million dollars.

Jefferson was astounded at this news, and so was the country. He instructed our envoys, Monroe and Livingston, to close the deal at once. Some months later, after much wrangling, Congress voted approval.

At the time of the purchase no one had any idea of the vast expanse of territory acquired. All the lands west of the Mississippi, except Texas and California and the territory Mexico ceded by treaty and purchase, was included. Here was a veritable wilderness of wealth and beauty awaiting the importunity of the white man to explore. A year later, Congress having appropriated a sum of money to defray the expenses, the great adventure got under way. Two young Virginians, Meriwether Lewis and William Clark, were placed in charge of the expedition. They left Saint Louis May 14, 1804, to return two and a half years later with a glowing account of their journey up the Missouri River to its source in the Rocky Mountains, thence over those mountains, and down the great Columbia River to the Pacific coast.

For the sake of development and governmental control, this newly acquired domain was immediately divided into the "Territory of New Orleans" and the "District of Louisiana." Nine years after its transfer from French to American jurisdiction the "Territory of New Orleans" be-

came the present State of Louisiana. In 1805 the "District of Louisiana," by act of Congress, became the "Territory of Louisiana." In 1807 Iowa became a part of the Territory of Illinois; in 1834 it was transferred to and became a part of the Territory of Michigan; in 1836 it became a part of the Territory of Wisconsin, and, finally, in 1838, it was organized as an independent territory, the Territory of Iowa.

The first white men to walk on Iowa soil were two French Jesuit missionaries, Marquette and Joliet, who, on May 13, 1673, set out from Mackinaw in search of a great river which the Indians said lay far to the south and west. According to the report, the banks of this great river were thickly populated by a savage race of barbarians, but the country through which it flowed was beautiful and valuable. The Jesuit missionaries wanted to save the souls of the barbarians. And M. Talon, Governor General of the French Canadians, wanted the land. He was also curious to know whether the Great River emptied into the Gulf of Mexico or the Pacific Ocean. Therefore, he commissioned them and ordered them to proceed on their great exploration as history relates.

#### BLACK HAWK WAR AND INDIAN TREATIES

Many years had come and gone before white men came to live on Iowa soil. In fact, the first permanent settlement was affected by Julein Dubuque, at the city which bears his name, in 1778, one hundred and fifteen years after Marquette and Joliet had visited the Indian village on the banks of the Des Moines River near the present city of Keokuk. During the next sixty years settlements were increasingly progressing from the shores of the Mississippi to points inland as far as one hundred miles. By war, by treaties, and by purchase the Indians were gradually pushed westward until, in 1838, the Territory of Iowa was duly established with the capitol at Burlington. The territorial boundary lines at this date were fixed by the Black Hawk Purchase (1833) and another in 1837. It was bounded on the east by the Mississippi River, on the north by Canada, on the south by Missouri, and on the west by a line extending due south from the British Possessions to Missouri, which line was soon to become (and still remains) the western boundary of Jefferson County. On October 11, 1842, a second treaty was made with the Sac and Fox Indians. The terms of this treaty provided that the Indians would abandon their claims to all the lands east of the Missouri River, and leave the Territory of Iowa forever by October 11, 1845. The Indians secretly resented this treaty and it was feared by government officials that their exodus from Iowa

(Continued on page 424)



# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**THE TREATMENT OF PEPTIC ULCER, Based Upon Ten Years' Experience at the New York Hospital**—By George J. Heuer, M.D., professor of surgery, Cornell University Medical College and Surgeon-in-Chief of the New York Hospital. Assisted by Cranston Holman, M.D., assistant professor of clinical surgery, Cornell University Medical College, and William A. Cooper, assistant professor of Clinical Surgery, Cornell University Medical College. J. B. Lippincott Company, Philadelphia, 1944. Price, \$3.00.

**THE MANAGEMENT OF NEUROSYPHILIS**—By Bernhard Dattner, M.D., associate clinical professor of neurology, New York University Medical College. With collaboration of Evan W. Thomas, M.D., assistant professor of medicine and assistant professor of dermatology and syphilology, New York University Medical College; and Gertrude Wexler, M.D., instructor in dermatology and syphilology, New York University Medical College. Grune & Stratton, New York, 1944. Price, \$5.50.

**CLINICAL LECTURES ON THE GALLBLADDER AND BILE DUCTS**—By Samuel Weiss, M.D., clinical professor of gastroenterology, New York Polyclinic Medical School and Hospital; gastro-enterologist, Jewish Memorial Hospital, New York; consulting gastro-enterologist, Beth David Hospital, New York, Long Beach Hospital, Long Island, etc. The Year Book Publishers, Inc., Chicago, 1944. Price, \$5.50.

**HANDBOOK OF NUTRITION, A Symposium prepared under the auspices of the Council on Foods and Nutrition of the American Medical Association.** American Medical Association, Chicago, 1943. Price, \$2.50.

**SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES**—By George R. Hermann, M.D., professor of medicine, University of Texas, director of the cardiovascular service, John Sealy Hospital, consultant in vascular diseases, U. S. Marine Hospital. Third edition. The C. V. Mosby Company, St. Louis, 1944. Price, \$5.00.

**RADIATION AND CLIMATIC THERAPY OF CHRONIC PULMONARY DISEASES, With Special Reference to Natural and Artificial Heliotherapy, X-ray Therapy, and Climatic Therapy of Chronic Pulmonary Diseases and All Forms of Tuberculosis**—Edited by Edgar Mayer, M.D., assistant professor of clinical medicine, Cornell University Medical College, New York City; attending physician New York and Memorial Hospitals; special pulmonary consultant, New York State Department of Labor. The Williams & Wilkins Company, Baltimore, 1944. Price, \$5.00.

**ALLERGY IN PRACTICE**—By Samuel M. Feinberg, M.D., associate professor of medicine and chief of the division of allergy, Northwestern University Medical School; president, American Association for the Study of Allergy, 1942-1943; with the collaboration of Oren C. Durham, chief botanist, Abbott Laboratories. The Year Book Publishers, Inc., Chicago, 1944. Price, \$8.00.

**FEMALE ENDOCRINOLOGY**—By Jacob Hoffman, M.D., demonstrator in gynecology, Jefferson Medical College; pathologist in gynecology, Jefferson Hospital; formerly research fellow in endocrinology and director of the Endocrine Clinic, Gynecological Department, Jefferson Hospital, Philadelphia. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

## BOOK REVIEWS

### VIRUS DISEASES IN MAN, ANIMAL AND PLANT

By Gustav Seiffert. A Survey and reports covering the major research work done during the last decade. Philosophical Library, New York, 1944. Price, \$5.00.

For years vira have played an important rôle in human, plant and animal life. With the exception of rabies and smallpox, little has been known until recently about the etiology of virus diseases, their mode of spread, reservoir hosts, immunity produced, and methods of determining the presence of virus infections. Like the field of bacteriology in the late nineteenth century, the field of virus research has barely been scratched. Much has to be learned about these diseases.

As the author indicates, this book is "a survey and report covering the major research work done during the last decade." The book is divided into five main parts. The first 90 pages deal in detail with the characteristics of vira, their degree of pathogenicity for varying hosts, immunity produced, their mode of spread and epidemiologic factors.

The second part, consisting of 191 pages, discusses the various virus infections of man, animals, and birds. This includes those diseases definitely proved to cause infection in these hosts and those of a borderline character.

Virus-like infections such as pleuropneumonia, streptobacillus moniliformis, the Richethia, Bartonella and Grahamella, and the bacteriophage are discussed in the next 20 pages.

A short discussion of filtrable bacterial forms appears in the fourth section, while 20 pages are devoted to the methods of virus investigation.

On each page is a running bibliography which is unique and complete. A fairly extensive index is found at the end of the book.

This volume is well organized and presents a complete and up-to-date review of our present knowledge in the virus field. Some technical details are omitted which can readily be found in the bibliography presented.

I. H. B.

### SYNOPSIS OF NEUROPSYCHIATRY

By Lowell S. Selling, M.D., director, Psychopathic Clinic, Recorder's Court, Detroit, Michigan; associate attending neuropsychiatrist, Eloise Hospital; adjunct attending neuropsychiatrist, Harper Hospital. The C. V. Mosby Company, St. Louis, 1944. Price, \$5.00.

This is a first edition of a text which should prove popular to the student for review in preparation for examination and to the practitioner seeking quick, authentic description of some particular field of interest.

The book is about equally divided in volume between neurology and psychiatry. Neurology is considered from the standpoint of known pathology of the forms or functions of various parts of the nervous system. Symptomatology and treatment are sufficiently complete for a synopsis. Part II discusses

psychiatry in short, understandable descriptions of the usual pathologic mental entities. All physical methods of treatment are well described; however, a synopsis does not lend itself well to descriptions of psychotherapeutics. The chapter on psychopathic personality should be commended for the clearness of description and the method of presenting this difficult division of psychiatry.

This is a valuable book for all uses to which a synopsis is usually applied.

J. I. M.

#### THE ANALYSIS AND INTERPRETATION OF SYMPTOMS

Edited by Cyril M. MacBryde, M.D. Reprinted from "Clinics," April, 1944; Volume II, No. 6. J. B. Lippincott Company, Philadelphia, 1944.

Most writers of textbooks dealing with diagnosis tend to group symptoms under various headings such as respiratory diseases or diseases of metabolism. In this little book, Dr. MacBryde and his associates have made an effort to evade this usual plan by analyzing and interpreting common leading symptoms as related by the patient to his physician, thus enabling him to take the presenting symptoms and work inward and backward to the etiology, the organic lesions, progress, and the rational treatment of the case.

Great stress is laid on taking a complete and proper history of each case and then correlating the different symptoms to help determine a correct and proper diagnosis.

It would seem to me that the scope of the book could have been widened and that more prominent symptoms could have been analyzed and discussed, such as diarrhea, constipation, edema, loss of weight, etc. In this respect the book seems incomplete; however, the different chapters are all well written and provide the reader the opportunity of directing his efforts along the right channels of thought in attempting to make a proper diagnosis.

The chapter on nervousness and fatigue is alone worth the price of the book since these two common symptoms are analyzed in a most comprehensive and unique manner.

This little book would be a valuable addition to any physician's library.

J. B. K.

#### THE ELECTROCARDIOGRAM

Its Interpretation and Clinical Application

By Louis H. Sigler, M.D., attending cardiologist and chief of cardiac clinics, Coney Island and Harbor Hospitals; former instructor in medicine, New York Post Graduate Medical School, Columbia University. Grune & Stratton, Inc., New York, 1944. Price, \$7.50.

This work attempts to put into one volume all the essential available knowledge of electrocardiography,

and it succeeds remarkably well. It includes all the fundamentals needed by the beginner and covers the advances in methods and interpretation that have appeared in the current literature up to the time of publication.

The style is clear and as simple as possible with subject matter as technical as electrocardiography. Both verbosity and over-simplification have been avoided. The illustrations are excellent in quality and well selected to cover all varieties of tracings; on the other hand, redundancy of illustration is avoided. As in all books of this type, text referring to illustrations is not always on the same or adjacent pages, so that one must frequently turn back or forward a page or two in reading. This slight annoyance is not serious and is not entirely avoidable, since several references to a single illustration often must be made in the text. The bibliography, which makes no claim to completeness, is well selected and conveniently placed at the end of each chapter. The author has used good judgment in including enough clinical material without exceeding the scope of the book. Controversial material is dealt with briefly and not too arbitrarily.

The twenty-five chapter headings are logical in division and arrangement. They are uniformly good, although the first four are unusually fine exposition. Localization of myocardial infarcts is very well covered, and the final chapter, on precordial leads, is everything that could be desired. If one could own only one book on electrocardiography, this one would be a wise choice.

B. F. W.

#### A MANUAL OF PHYSICAL THERAPY

By Richard Kovács, M.D., professor of physical therapy, New York Polyclinic Medical School and Hospital; attending physical therapist, Manhattan State, Harlem Valley State, Columbus, and West Side Hospitals; visiting physical therapist, New York City Department of Correction Hospitals. Third edition, thoroughly revised. (Formerly published under the title "Physical Therapy for Nurses") Lea & Febiger, Philadelphia, 1944. Price, \$3.25.

The author has planned this volume very well. The introductory chapter gives one a clear insight into the physical effects of different types of therapy. These discussions are rather concise, but very clear. The technic of various types of heat, massage and exercise has been discussed in such detail and with such specific instructions that one need very little experience in the subject in order to grasp what has been put before him.

The author has accomplished the purpose of producing a volume which will be of value to the general practitioner as well as to specialists and physiotherapy technicians.

The entire book is so condensed it will not require too much of one's time to cover it completely. It is well recommended to everyone practicing medicine, and, also, to everyone who is administering physical therapy.

L. M. O.



# COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION

Edited by Richard M. Hewitt, M.D.; A. B. Nevling, M.D.; John R. Miner, Sc.D.; James R. Eckman, A.B.; and M. Katharine Smith, B.A. Volume XXXV-1943. W. B. Saunders Company, Philadelphia, 1944. Price, \$11.00.

The Collected Papers of the Mayo Clinic for 1944 maintains the same high standards recognized for years by the purveyors of current medical literature.

The subjects treated cover a large variety of conditions. Articles of interest will be found for the general practitioner as well as the surgeon and specialist. Large numbers of papers are referred to by title only and comprise an invaluable bibliography.

Both the war surgeon and the civil doctor will find treatises dealing with subjects with which they daily are confronted. Among these are the treatment of war wounds, surgery in the aged, recent developments in chemotherapy, and new drugs. Many recent advances in diseases of the alimentary tract, the genito-urinary organs, ductless glands, the nervous system, and the blood and circulatory system are reported in full.

Every physician will find this volume an invaluable addition to his medical library and a vast source of practical medical information.

J. B. P.

# MEDICAL HISTORY OF WAPELLO COUNTY

(Continued from page 421)

to Nebraska lands might end in serious trouble. To avoid the possibility of undue aggravation on the part of the whites the Indians were given until May 1, 1843, to vacate the territory as far west as a line running north and south through Red Rock. West of this line the Indians were to occupy whatever lands they chose until October 11, 1845.

Terms of the Black Hawk Purchase treaty provided a reservation of four hundred square miles of land on the Iowa River, including within its limits Keokuk's village on the right banks of that river. This tract was known as "Keokuk's Reserve." This was the seat of Indian government until 1837 when another treaty was consummated with the United States. By the terms of this treaty the Sac and Foxes were given a tract of land on the Des Moines River in exchange for "Keokuk's Reservation," and other considerations, including the establishment of an agency for their welfare and protection at the site of the present town of Agency City. The Indians established themselves along the banks of the Des Moines River from Iowaville, three miles below Eldon, to Eddyville. The three principal villages were located in and near Ottumwa, which the Indians called "Ot-tum-wa-noc."

(To be continued)

## THE KANSAS CITY SOUTHWEST CLINICAL SOCIETY

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# The JOURNAL of the Iowa State Medical Society

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## THE TREATMENT OF CONGESTIVE HEART FAILURE\*

ROBERT N. LARIMER, M.D., Sioux City

It would seem that a subject such as The Treatment of Congestive Heart Failure, fundamentals of which were first presented to the members of this audience when they were in their second year of medical school and were repeated to them many times in their later medical school days, and knowledge of which they have had to apply almost daily in their professional work during all their years of practice, would be trite and repetitious. Such need not be true. In face of the failure which so often occurs with any plan in the treatment of this condition, a review of both the older and more tried methods and an evaluation of newer schemes of therapy is worth while and may be comforting. Such is the purpose of this discussion.

By definition, congestive heart failure means either an acute or chronic condition characterized by dyspnea (either with or without exertion), edema, cyanosis, and usually elevated venous pressure. Treatment should relieve these symptoms. This discussion will not include any mention of the treatment of the primary cause of the heart failure, but it must be obvious that the treatment of that primary condition may be the single factor which might relieve congestive failure in many instances. On the other hand, these remarks are concerned with those individuals whose heart failure is of a chronic nature and without a single precipitating cause.

At least three things are hastily thought of for the treatment of congestive failure: rest, digitalis, and diuretics. Certainly they represent the foundation of the treatment but there are other methods of attack on the situation which most of us use, which may be occasionally forgotten and which by their use may bring real comfort to the patient. These additional methods of treatment include the use of diet, salt elimination, oxygen,

venesection, transfusion, sedatives, psychotherapy, and so on. An evaluation of these therapeutic methods forms the basis of this paper.

Apparently rest has been used as the corner stone in the treatment of heart failure. Rest is a natural reflex to dyspnea and that it should be applied therapeutically to a person who was short of breath must have appealed to the philosophers of medicine long before any real appreciation of the patient's true difficulty was recognized. Bed rest not only serves the purpose of cutting activities to a level which the heart can support, it also enables a patient who consistently has an oxygen debt and dyspnea to reach some state of normal balance. Two questions concerning rest which the doctor has to answer are: how to obtain rest and how long should it be continued.

Morphine remains as the best single drug to give rest. It produces not only physical relaxation but also mental tranquility. A third effect of morphine, which doctors have always recognized in pneumonia but have often forgotten in cardiac failure, is depression of the respiratory center. This center is frequently stimulated in congestive failure past the point of actual oxygen demand, and morphine, by its depressing action, slows respiratory rate and produces a salutary effect. Frequently the dose of morphine must be relatively large and repeated doses are of real value. It seems difficult to convince patients' relatives or nurses that this is true. They seem to fear repeated hypodermic injections, but the relief to the patient is justification enough for the doctor to proceed in the use of the drug. Occasionally milder sedatives are sufficient, but usually when the patient is first seen morphine should be used and it is only after several nights of satisfactory rest for the patient that one is justified in trying any barbitol derivative or other sedative. In some cases one must be willing to use morphine indefinitely to keep the patient comfortable. Again the comfort of the patient outweighs whatever criticism may be received as to the propriety of the drug's use.

\*Presented before the Ninety-third Annual Session, Iowa State Medical Society, Des Moines, April 20 and 21, 1944.



Rest at night is but a part of the day's picture. The physical activities of the patient must be kept at a minimum and this is best obtained by twenty-four hours a day of bed rest. Occasionally with the dyspneic patient, better results and greater comfort are obtained if he is allowed to sit in a chair or even lean forward resting on a convenient object. This is especially true if much pulmonary edema is present, or if the more horizontal position produces pulmonary congestion. Sedatives during the day are valuable and any sort of physical effort should be avoided. Friends too often forget that their visits are tiring and that even after they have gone the patient is still stimulated by the visit. Relatives, themselves, may exhaust a patient, and if one member of the family can assume all of the nursing responsibilities in a manner satisfactory to the patient, such a plan is often productive of calm in the sick room.

Efforts such as eating, use of the bed pan, reading, pointless conversation, worries in relation to members of the family who may be away from home or have other personal problems, should be reduced to the very minimum.

The problem arises as to how long to continue this very quiet type of life. Elaborate tables have been prepared by various men in their attempt to show a relationship between degree of failure and time of recovery. It would seem that in an individual case they have little practical application. The physician's judgment and experience are the only methods of determining the length of the rest period. Certainly it should be continued until the maximum improvement is obtained and maintained. Simple functional tests to show the effect of effort are helpful; and then some additional rest should be demanded. In other words the mere improvement of symptoms is not enough to allow the patient his freedom. As the patient seems to stand increased activity new judgments can be made as to the extent of this activity. One must never hesitate in being critical of the effect of activity, and any symptoms which appear should not be minimized but should call for more rest, and finally the patient should be educated to the fact that his life after a period of congestive failure will always be conditioned by his having had heart failure and the probability of its recurrence. Specifically, one should always expect that it will take several weeks to restore competency. This period may last several months or in fact in many instances, for the price of life, the patient must pay by being a cardiac invalid.

Certainly among drugs, aside from those which are adjuncts in obtaining the rest for the patient, digitalis holds first place in the treatment of con-

gestive failure. This drug has been used for 250 years since Withering first described it in 1776. Every medical student and doctor is familiar with digitalis and, in general, its effects. In a late review by Gold<sup>2</sup> recent developments in our knowledge of the digitalis group of drugs has been brought up to date. He confesses that the exact mechanism of the effect of the drug is as yet unknown. It would seem that digitalis first increases the systolic force of the heart's contraction. The application of this statement therapeutically is that digitalis is useful in congestive failure by increasing the systolic output of the failing heart toward or to the point of normal systolic outflow. This apparently is different from the older idea of improvement in heart muscle tone which assumes some effect that shortens the resting length of the heart muscle; that is, a decrease in heart size the result of dilatation, although the effects might be the same. Gold points out secondly that other investigators have found digitalis increases the efficiency of the heart muscle; there is an increase in the amount of work which the heart muscle can do for a given expenditure of energy. Every physician is familiar with the slowing action of digitalis and its effect in restoring certain types of arrhythmia. Both of these effects are to be desired in the treatment of congestive failure since certainly cardiac efficiency is improved when the heart assumes its normal rate and rhythm. As to the physiology that produces these effects we are not concerned, but that digitalis will dependably produce them is common knowledge with all physicians. The need for something to produce the digitalis effect quickly has led to the development and use of hypodermic digitalis preparations, lanatosid-C, ouabain and in certain instances, quinidine. Generally they have no advantage over some oral preparations of digitalis and digitalis is cheaper, easier for the patient to take and, finally, it is the preparation which the patient uses for an indefinite period. In what was probably the first, if not the first, article in American medical literature on the use of digitalis, written by John Spence<sup>3</sup> of Virginia in 1800, the use of both the tincture and infusion of digitalis was mentioned and six months later the same author noted "I have at present patients taking this medicine in powder, tincture and pill; but to the last form, I now give a decided preference." Most modern physicians have come to the same conclusion. In the treatment of congestive failure not only is the cardiac effect of digitalis important, but the diuretic effect should be mentioned and the increased volume of urine which follows the use of digitalis undoubtedly does much to relieve the symptoms of congestive failure.

The treatment of edema and the use of diuretics are certainly important features of the treatment of congestive failure. With the improvement in the heart which follows rest and digitalis alone there may be striking improvement in lessened fluid accumulations. Edema of the lungs and more dependent edema may entirely disappear, but too often they do not without some direct attack. Limitation of sodium chloride and fluids and changes of diet are the physiologic bases for treatment of edema. Edema<sup>4</sup> in congestive failure is due to increased capillary pressure and a decrease in plasma proteins so that the direction of osmotic pressure of the circulation is from the capillaries into the tissue spaces where sodium chloride helps to increase the edema since sodium ions increase the volume of tissue fluids. To reverse this process, fluids which may reach the circulation, whether given by mouth, parenterally, or intravenously, should be limited; salt intake should be drastically reduced even to 1 gram per day, and perhaps extra protein in the form of plasma may be necessary to start the diuresis which these people need. One should not be in too great a hurry to produce this effect and, in fact, disaster may result from increasing the circulatory load on the heart by the mobilization of fluid into the circulation before the heart is capable of carrying that extra load. The subjective improvement to the patient of drying out the lungs adds greatly to his comfort, but one should remember that no change in cardiac output occurs following the administration of diuretics, and actually the heart may fail if hypertonic glucose is given before the heart has regained some of its strength. In proof of this, the statements of Murphy and Correll<sup>5</sup> are quoted: "Hypertonic glucose solutions in volumes up to 1000 cc. at rates of 10 to 20 cc. per minute may safely be given to noncardiac patients in Grade I compensation without fear of untoward cardiovascular consequences. In cardiac patients of Class II, there is some danger in the use of volumes of hypertonic fluids in these amounts and at these rates of administration. In Class III cardiac patients, about 25 per cent will be precipitated in acute left or total heart failure. In Class IV compensation cardiac patients, all (100 per cent) will be made worse by this volume of hypertonic solution!

"In volumes of 100 to 200 cc. of strongly hypertonic solutions, about 20 per cent of Grade III cardiac patients and half Grade IV cardiac patients will be made worse. In volumes of 50 cc. with or without 8 grains of aminophylline, the dyspnea and pulmonary edema will be improved in all Grade IV cardiac patients."

Most cases of congestive failure are (so far as

functional capacity is concerned) either Grade III or IV and the contraindications and danger of the use of hypertonic solutions in congestive heart cases, regardless of the presence of nausea, vomiting, dryness, and apparent low caloric intake, cannot be overemphasized. The same statements as above apply to the use of other diuretics. Both doctors and patients are impressed by the increased urinary output following the use of mercurial diuretics or the xanthine group, and they feel that great benefit must be resulting. The doctor cannot forget, however, the subtle effect of increased cardiac load which the patient has, as the result of fluid mobilization, and the possible and likely disastrous effect which may quickly appear.

The doctors of Iowa have been well educated in the use of the xanthine drugs and especially aminophylline intravenously by the Iowa City group. The beneficent and often dramatic subjective improvement of the patient insures the placing of aminophylline on our armamentarium. The drug, if given in therapeutic amounts in plain water intravenously, often acts dramatically to relieve dyspnea in the congested patient. This is not to be confused with its use in nocturnal dyspnea or coronary thrombosis. Diuresis frequently occurs after either intravenous or oral use, although this effect, when really desired, may best be produced by the mercurial diuretics either singly or preferably in combination with the xanthine drug, theophylline. Salyrgan and theophylline may be expected to cause a diuresis of up to two or three liters. The usual dose is 2 cubic centimeters of the combination in the vein from one to three times a week and as many as 627 doses have been reported as being given to a single individual without any evidence of mercurial poisoning or renal damage. Recent work has shown that the effect is enhanced if the two drugs are given separately, aminophylline being given intravenously an hour before the salyrgan. The diuretic effect is often improved by the use of acid producing salts such as ammonium or potassium chloride or nitrate.<sup>6</sup> It is well recognized that potassium salts have the opposite effect of sodium salts so far as retention of fluids by the tissues is concerned and this fact may be used therapeutically by the substitution of potassium chloride instead of sodium chloride in the diet or potassium chloride alone can be used as a diuretic agent; sixty to one hundred grains of potassium chloride have been used daily with good effect in some cases. Mention was made earlier of the use of plasma as a diuretic agent. It has been known for many years that transfusions of whole blood occasionally help the congested patient. This effect undoubtedly was from the



plasma alone, and with the increasing availability of plasma it may be expected that it alone will be used and the risk of transfusion reactions avoided. Plasma from blood banks usually has been prepared from blood which has had a sodium salt as an anticoagulant, and the unfortunate effect of adding a fairly large volume of fluid containing sodium citrate to the circulation should not be forgotten with the use of plasma. One should certainly not think of this substance early in the treatment of congestive failure.

The use of diet in the treatment of congestive heart failure except so far as the limitation of salt and fluid content are concerned has probably not been of great value in the hands of most physicians. Caloric restriction for the obese patient is indicated, and during the stage of congestive failure food restriction is definitely a measure which reduces the work of the heart in every patient. Food which needs to be chewed, which produces gas or diarrhea, should certainly be avoided. Conversely, the diet may have a reasonable number of calories. It should be that which can be easily swallowed and easily assimilated, and attractive to the patient. The diet of Smith, Gibson and Ross may have no specific effect on the patient's condition, but it satisfactorily fulfills the requirements of a cardiac diet and may be used.

The need for limitation of fluids may best be evaluated by watching the patient's intake and urinary output. Even in the presence of a low output and marked edema tissue dehydration may occur and too drastic limitation of fluids is not to be recommended; while on the other hand, if the patient is allowed to be his own judge as to the amount of fluid which is to be given to him, excessive intake may be a factor in the defeat of the treatment. Arbitrarily, 1,200 to 1,500 cubic centimeters should supply the patient with enough fluid and still not overburden the circulation, and this is an amount which may be safely used. The use of throat lozenges, cracked ice, and similar devices to allay the patient's thirst may help him to stay within these limits and still be comfortable. As his heart failure improves, and the urinary output increases, larger amounts of water may be used if desired, providing that there is no reaccumulation in the tissue.

Two other important adjuncts should be briefly mentioned; one is relatively new, the other relatively old. During the past decade the use of oxygen in congestive heart failure has been increasingly popular. Not only is the patient subjectively improved by the increased oxygen saturation of the arterial blood but the tissue oxygen tension is improved and the other physiologic goals

of treatment are approached. Breathing is easier and dyspnea disappears. Diuresis may occur, venous pressure falls toward normal, and the accumulation of lactic acid in the tissues is decreased. The cardiac output may not be affected at all but the other features mentioned above make the oxygen of real value. Of various methods of using the gas, the nasal catheter seems to be the easiest and in most instances is satisfactory. If a meter is available, the oxygen flow may be regulated so that three to five liters per minute are used. There is no way to insure efficient use of the gas by the patient but if a sufficiently high concentration is maintained in the nasal pharynx, one may assume that good effects will result. Most patients do not like oxygen masks, and with wear and tear oxygen tents have largely disappeared, although they apparently are the most comfortable way for the patient to receive oxygen.

Venesection has been used for hundreds of years. It produces a decrease in blood volume and a falling venous pressure, a decrease in the congestion of the lungs, and there is often great subjective improvement. Not all cases respond dramatically but when right heart failure seems to predominate, greater benefit seems to ensue. It is an effective emergency treatment in some cases.

One should also mention mechanical removal of fluids. With the accumulation of fluid in the pleural cavity, striking improvement may result by the removal of pleural fluid and relief of pressure on the lungs. The removal of ascites frequently improves the heart by decreasing venous pressure, and it is certainly a quick and easy fashion to remove fluid without increasing the circulatory volume.

The fluid in dependent extremities may be encouraged to flow from the extremity by gravity but, of course, such fluid usually accumulates in the tissues of the back and in the serous lined cavities of the body. With the exception of the removal of pleural fluids, mechanical removal of fluid can usually be postponed until the effects of improved cardiac output can be evaluated, although the desire for subjective relief may be an indication for earlier removal of ascites.

All of the foregoing must be applied to the patient who is acutely ill with congestive failure, and if the physician is fortunate his patient may approach a change in his classification in regard to functional capacity; that is, Grade IV cases may become Grade III and Grade III become Grade II, and so on, but we should not become optimistic. Sodeman and Burch<sup>7</sup> have reported that only 5 per cent of the patients who develop congestive

failure with a gradual onset and without precipitating cause, compensate fully to even minimal activity. In marked contrast to this small percentage figure, if the precipitating cause were known and removed, 75 per cent would improve. In the whole group of congested cases, about 60 per cent will fail to compensate. For these people all of the features of the treatment of severe congestive failure may have to be used in a modified form, but there is another approach which may be of great value to the patient. It is abstract and of itself is of no scientific value, but it is as important as any other element in the treatment. It may be formulated as the personality of the attending physician. These patients as a group must be educated to their new physical status and certainly there are few who can accept this with good grace and equanimity. In addition to their physical complaints, most are very unhappy. Their productive capacity is reduced, they have become more or less dependent physically upon members of their family, and most of them appreciate their ultimate outcome. It is the responsibility and duty of the physician to buoy them up and maintain their morale. They must be urged to continue with their treatment, which may be unpleasant and monotonous. He must be arbitrary in limiting their activities and hopeful as to their future, and he must be constantly alert for evidences of the return of grave symptoms. This calls for kindness, tact, and patience in handling an individual who may cooperate poorly and who may have small desire to keep trying. Every physician, though, has patients who by their very existence and presence on the doctor's calling list are proof that the effort has been made and is worth while.

The treatment of congestive failure, then, depends on many things. To succeed in treatment means to understand the physiologic basis of the condition and to attempt to restore the abnormal toward or to normal. Both the science and art of medicine can help to do this.

#### BIBLIOGRAPHY

1. Altschule, M. D.: Physiological Studies in Cardiac Decomposition, Modern Concepts of Cardiovascular Disease, Vol. IX, No. 12. American Heart Association, December, 1940.
2. Gold, Harry: Recent Development in Digitalis, Modern Concepts of Cardiovascular Disease, Vol. XI No. 4. American Heart Association, April, 1942.
3. Spence, John: A case of pulmonary consumption cured by the use of digitalis purpurea. Medical Repository, v:13-17, 1802.
4. Marvin, H. M.: Treatment of Edema, Modern Concepts of Cardiovascular Disease, Vol. X, No. 3. American Heart Association, March, 1941.
5. Murphy and Correll: Effect of Intravenous Solution, Modern Concepts of Cardiovascular Disease, Vol. X, No. 4. American Heart Association, April, 1941.
6. Goodman, J. I., Corsaro, J. F., and Stacy, R.: Mercurial and xanthine diuretics in chronic congestive heart failure; comparative study. Arch. Int. Med., lxx:975-982 (December) 1942.
7. Sodeman, W. A., and Burch, G. E.: Tissue Pressure: objective method of following skin changes in scleroderma. Am. Heart Jour., xvii:21-26 (January) 1939.

## ACUTE MASTOIDITIS IN CELIAC DISEASE\*

HENRY A. BENDER, M.D., Waterloo

Primary or latent and masked mastoiditis are such atypical cases of this ear infection that they are easily overlooked, because the disease progresses without well-marked symptoms, or is hidden by some systemic disease of marked dehydration overshadowing the symptoms of mastoiditis.

The following is a brief review<sup>1</sup> of the above diseases.

"In the latent or primary mastoiditis cases, the onset may be so slight as not to be perceived by the patient, or there may be a day or two's duration of a sore throat followed by some dull pains in the ear and some impaired hearing. The pain soon subsides and the patient forgets that he has had any trouble until after a time varying from two to three weeks to several months, when he is suddenly seized with pain in the mastoid region and on pressure the examination will show much mastoid tip tenderness. The drum membrane will appear normal in color, or there may be a slight lack of luster, or some injection of the malleus. The drum head does not break down because of the mild virulence of the bacteria, or the possibility that the drum is thick and abnormally resistant. Rapidly extending suppuration and softening of the bone may occur without pain, fever, or other marked symptoms."

In masked mastoiditis there are the signs and symptoms common in the average case of suppurative otitis media at the onset. The patient has had a cold or a sore throat, which extends along the eustachian tube into the middle ear, causing fever and pain. An examination of the drum shows it reddened and bulging, and it either ruptures or is opened by a myringotomy or paracentesis. This latter procedure generally relieves the pressure and the pain subsides, the temperature drops, and the patient feels about normal except for a fullness in the ear and the annoyance of the discharge.

In five or six days to several weeks the discharge gradually decreases, and as the body resistance returns the ear becomes well.

Since the advent of chemotherapy, and especially with the use of the sulfonamides, some of the cases which formerly went into an easily recognized mastoiditis are now masked by the drug. The symptoms and signs are all reduced, but the infection keeps on spreading through the mastoid cells causing a complete breakdown of the cells. Other conditions in which a latent mastoiditis can

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progress, and which can mask the symptoms of the infection because of their own outstanding symptoms, are celiac disease and cholera infantum.

Celiac disease<sup>2</sup> is a disease of infants developing usually after the child has become nine to eighteen months of age. It may develop slowly, in which case the child ceases to gain weight, becomes irritable, and the abdomen distends. It may start with a diarrhea, from which it does not entirely recover; later the stools become bulky, light-colored, greasy, and of a foul odor. The stools will number four to eight a day and can alternate with attacks of diarrhea in which they maintain a fairly firm, putty-like consistency and still are bulky and foul. The infant wastes to a marked degree, the subcutaneous fats disappear, and the wasted extremities are a striking contrast to the greatly distended abdomen. There is often a marked edema of the lower abdomen and the muscular weakness progresses. Much vomiting is also present, making a very fretful and irritable youngster.

Cholera infantum<sup>3</sup> will be mentioned because in the 1920's many cases of this disease were thought to have been caused by a latent or masked mastoiditis or antrum sinus disease. This is an acute gastro-enteric disturbance with intense choleriform symptoms. The true case is caused by a specific micro-organism not yet determined. The onset may be sudden, but usually there is a short period of restlessness and an apparent abdominal discomfort. This is followed by vomiting and diarrhea, the latter being watery which is especially characteristic of the disease. It can be fatal in forty-eight hours. If the infant survives the acute symptoms, the condition becomes chronic and death is usually due to exhaustion or from an attack of one of the other gastro-enteric disturbances.

The case to be reported is one of celiac disease in which the patient apparently started to go "down hill" with a latent or primary mastoiditis, and then symptoms indicated a masked mastoiditis due to the outstanding signs of celiac disease and, perhaps, due to the use of sulfonamides.

#### CASE REPORT

*History:* Baby Robert M., age ten months, was admitted to the hospital March 10, 1942, as a case of malnutrition. The family history was negative as to the present illness. The birth weight was six pounds and ten ounces and the baby was "nice and fat when born" according to the mother. At the age of six weeks he underwent surgery for a hydrocele and since that time he had not seemed to do very well and had seemed to catch colds readily. About January 1, 1942, he had contracted a cold which left him with a constant rattle and gur-

gle in the posterior nares and also much sniffing. The appetite had been good, there had been no vomiting, and the weight had reached thirteen pounds. During the last few weeks prior to admission, he had been losing weight, the stools had been almost colorless and had a foul odor, the urine had been frequent and strong. The infant had not seemed sick until the last two nights, when he had become worse and had been taken to a pediatrician, who sent him to the hospital for observation and treatment.

*Physical Examination:* The infant was well developed but emaciated, there was marked dehydration, the skin was pale, the hair dry, and his disposition was listless with spells of fussiness and irritability. Lungs, head, and neck were negative. The abdomen was full, tense, and tympanitic, the muscle tone poor and the extremities thin and wasted. The nasal mucosa showed signs of coryza, the throat was slightly red, as was the left ear drum. The temperature was 100.5 degrees (R) and the weight was eleven pounds, six ounces. Blood examination was as follows: Hemoglobin, 78 per cent; red blood cells, 4,250,000; white blood cells, 19,500; polys, 66 per cent; lymphocytes, 30 per cent; and monocytes, 4 per cent. Urinalysis was negative. X-ray examination of the colon with a barium enema gave the following findings: "Colon filled to cecum after some difficulty. There was a definite elongation and reduplication of the colon." Feces were "hard with a trace of fat and starch, no blood."

*Diagnosis:* With the above findings, the diagnosis of (1) malnutrition and (2) celiac disease was made and the infant was placed on intensive treatment.

*Course in Hospital:* Between the admission date of March 10, 1942, and May 16, 1942, there were the following points of interest:

(a) Temperature was practically normal except for an occasional spike until May 12, when it went to 103.2 degrees (R), and on May 16 it subsided and some discharge was noted in each ear canal.

(b) The youngster was fretful most of this time, crying almost daily.

(c) The stools were large and yellow, varying in type from a diarrhea to large, soft, well-formed feces. After March 16, there were almost daily enemas to relieve the markedly distended and hard abdomen, always returning the yellow and foul-smelling stools.

(d) Emeses were frequent after feedings, almost daily after April 3.

(e) In spite of his troubles, there were a few times when he seemed to be gaining and on March 20 weighed the most, twelve pounds seven ounces.

(f) The white blood counts during this period

were as follows: March 10, 14,000; March 26, 15,500; April 13, 12,500; April 20, 11,000; May 12, 17,000.

(g) Examination of ears at different times by the pediatrician was negative.

(h) About April 20 he had a slight cough and a "sniffly" nose and was placed on sulfonamides and some nasal medication.

(i) On May 10, he became listless, cried constantly, had frequent emeses, and was losing weight.

On May 16, the writer was called into consultation because of the discharge in the ear canals. Examination showed much purulent discharge in each canal, and a large granulation at the upper left canal wall near the drum; the right posterior canal wall showed some sagging. A diagnosis of chronic, suppurative otitis media with a possible mastoiditis, bilateral, was made. It was recommended to observe the ears for a few days and if no improvement was noted, a mastoidectomy should be done if the patient could be gotten into a condition to stand the shock of the operation.

X-ray examination on May 18 revealed no evidence of bone disease in either side and no cellular development up to that time. The white blood count was 19,500, hemoglobin 84 per cent, and weight eleven pounds.

Sulfonamides were again given to the youngster, as well as some aural treatments and supportive measures to build up his resistance. He was given a plasma transfusion of 500 cubic centimeters on May 19. The stools and emeses remained about the same. On May 24, the aural discharge was less, it had changed to almost a mucoid type, and the canals seemed to be approaching normal in type, but there remained some evidence of granulations near the drums of each ear canal. The general condition showed no progress even if the ears did seem to be improving. On May 30, there was a marked edema of the scrotum and the left lower abdominal wall. The abdomen became more distended. On June 4 the temperature went to 102.4 degrees (R), the child became weaker rapidly, and it was decided to perform a mastoidectomy. Another plasma transfusion of 350 cubic centimeters was given on that day, and on June 6 a bilateral mastoidectomy was performed under ether anesthesia with the following findings: All cells in each mastoid area were completely broken down and filled with granulations, with much pus in the left one. All speed was made to keep down the length of the anesthesia and the operation was performed in twenty minutes.

Two days after the operation the temperature dropped to about normal and stayed there until he was discharged. On June 8 the canals were

about dry, on June 11 the stitches were removed and the canals were completely dry, and by June 23 the posterior wound was completely healed and the canals still dry. The white blood count went to 27,000 on June 11, to 18,000 on June 30, and 10,000 on July 4. For about one week after the operation the infant had a stormy time. He developed many boils over the head and body which had to be drained.

After the first week the emeses had almost stopped, he took his feedings better, the stools remained large and soft but needed many less enemas, he slept and rested much better, and became playful and attentive to things and people about him. He gained gradually in weight from the low point of ten pounds four ounces to eleven pounds fourteen ounces at the date of discharge on July 4, 1942.

The youngster has been seen several times since the discharge; he has gained in every respect. There has been no more ear trouble, the stools have been practically normal, and the weight in November 1943 was twenty-four pounds eight ounces.

At this point, I wish to thank Dr. C. A. Waterbury for allowing me to use his pediatric findings and also for the wonderful cooperation he gave in building up this child for the operation and then after the operation in keeping him alive. He did a fine piece of work.

#### COMMENT

This case presents the characteristic picture of celiac disease. The picture of mastoiditis was so latent and masked by the symptoms of celiac disease that it was not detected until the discharge appeared in the ear canals, at which time it seemed almost too late to attempt surgery.

The case was presented in order to stimulate recognition of possible masked or latent mastoiditis brought to the foreground by the use of chemotherapy.

#### BIBLIOGRAPHY

1. Gieason, E. B.: *A Manual of Diseases of the Nose, Throat and Ear*. Seventh edition. W. B. Saunders Company, Philadelphia, 1933.
2. Marriott, Williams McKim: *Infant Nutrition: A Textbook of Infant Feeding for Students and Practitioners of Medicine*. Revised by P. C. Jeans, M.D. Third edition. C. V. Mosby Company, St. Louis, 1941.
3. Rotch, Thomas M.: *Pediatrics: The Hygienic and Medical Treatment of Children*. J. B. Lippincott and Company, Philadelphia, 1895.

#### AMERICAN COLLEGE OF SURGEONS CANCELS 1944 CLINICAL CONGRESS

The American College of Surgeons, upon action of its Board of Regents, has cancelled its Annual Clinical Congress because of the acute war situation that has developed, involving greater demands than at any time in the past upon our transportation system. The Congress was to have been held in Chicago October 25 to 27.



## IMPACTED FOREIGN BODY IN THE URETHRA

LIEUTENANT COLONEL DONALD C. CONZETT,  
M.C., A.U.S.

Stimulated by a recent article by Robert Gutierrez,<sup>1</sup> the following case history is reported.

### CASE REPORT

At 2:15 p. m., August 9, 1942, a white soldier, twenty-four years of age, was admitted to the hospital, having been brought from a nearby town by ambulance. His complaints were inability to urinate associated with intense pain on effort and a sharp, sticking pain in the perineal region. The patient stated that the night before, while on a pass, he met a girl at a tavern. After drinking some beer, they obtained a pint of whiskey and registered at a hotel. He was very tired and lay on the bed and immediately fell asleep. He recalled that the girl was seated on a chair near the window. When he awoke it was daylight and his companion had departed. He arose to urinate and on attempt passed a few drops of blood. The associated pain was such that he almost fainted. Calling for help, he was taken to a local hospital where he was examined by a civilian physician who made a diagnosis of foreign body in the urethra. He was given adequate morphine to relieve pain and was transported to the Station Hospital. Physical examination was essentially negative except for the local conditions noted about the genitalia. There was evidence of recent bleeding from the urethra but the penis was soft, apparently not traumatized, and freely movable. When the patient was placed in the lithotomy position there was a circumscribed bulging in the midline over the membranous urethra. This area was exquisitely tender. X-ray ex-

amination was made (Figure 1), and the roentgenologist reported: "On anterior-posterior examination of the pelvis and perineum a faintly opaque shadow is seen. This shadow is 17½ centimeters in length as uncorrected for distortion and 7/10 centimeter in width. The central portion of this opacity is of lesser density than the margins. With an opaque catheter in the urethra, the foreign body is seen to extend from the coiled tip of the catheter at approximately the prostatic portion to a position just to the right of the mid sacral regions. Impressions: Embedded foreign body, probably in posterior urethra and urinary bladder. R. H. Donnell, Captain, Medical Corps."

A second film taken following introduction of a catheter proved a complete obstruction in this area. The foreign body was firmly impacted and neither pressure from the catheter nor manipulation over the prominent bulge could dislodge it. The patient was taken to surgery and under ether anesthesia a 2 centimeter longitudinal incision was made in the midline of the perineum. The skin and fascia were carefully dissected and retracted and the urethra exposed. Holding the proximal portion with two Allis forceps a transverse urethrotomy was done over the most prominent part of the angulation. The blunt end of a common "penny" pencil was seen and, with a small grasping forceps,

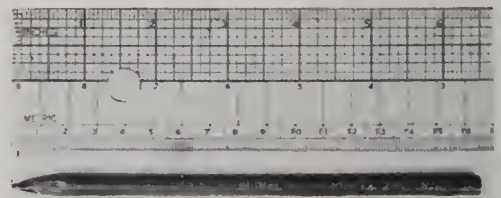


Fig. 2. Removed foreign body.



Fig. 1. Flat film showing impacted foreign body; arrows indicate position and length of the pencil.

easily withdrawn (Figure 2). A considerable flow of urine followed the removal of the pencil. A medium sized catheter was introduced through the penis and threaded into the incised superior portion of the urethra and on into the bladder. The urethra was then reconstructed about this catheter using 000 plain catgut and silk for the skin. Postoperative treatment included sulfathiazole in moderately heavy doses and forced fluids. The patient removed his catheter on the fourth postoperative day, but it was re-inserted without untoward developments. The skin sutures were removed on the tenth postoperative day and the catheter on the fifteenth day following surgery. Thereafter the patient voided normally. He was discharged to duty August 29, twenty days following surgery. The urinalysis on discharge showed five pus cells per high power field.

## COMMENT

Several interesting features entered into this case. Since the patient refused to amplify his first statement, no clue could be obtained as to the nature of the foreign body. Further, because of the type of pencil used there was no metal to give a contrast shadow in the preoperative roentgenogram. The uneventful recovery was in large part due to the fact that operative treatment was instituted before infection or overdilatation could occur.

## REFERENCE

1. Gutierrez, Robert: Unusually long foreign body impacted in urethra, causing painful priapism for seven days. Removal and cure by external urethrotomy. *Jour. Urol.*, xlix:865-871 (June) 1943.

### A NEW AND SIMPLE DIAGNOSTIC TECHNIC FOR BACILLUS TUBERCULOSIS

F. O. W. VOIGT, M.D., Oskaloosa

Difficulties in staining acid-fast organisms are well known and have led to attempts to improve staining procedures (as the cold Ziehl-Neelsen or Gabbett's stain) or to facilitate greater yields by concentration methods (antiformin concentration or phenolization with autoclaving).

During recent years the introduction of fluorescence microscopy seemed to fill a need for a more reliable diagnostic technic. By the selective use of the ultraviolet light instead of the visible light as source of illumination, this invisible radiation gives rise to fluorescence in the specimen which, becoming thereby self-luminous, supplies its own light for the formation of the image. Primary, or natural, fluorescence is understood as the fluorescence of specimens which have not been prepared or chemically treated, while secondary fluorescence denotes the fluorescence which is artificially conferred on specimens having no natural fluorescent properties by "staining" with what are known as fluorochromes. v. Provazek (1914) and later Bommer (1929) demonstrated fluorescent staining in animal tissue sections. Hagemann<sup>1</sup> succeeded in applying this method to the examination of protozoa, bacteria, and—of special importance—even of viruses. He demonstrated for the first time tubercle bacilli, using a special staining method. Comparative bacteriologic examinations with the fluorescent microscopic method showed a much greater yield of acid-fast organisms in contrast to the brightfield method. This great advantage is, however, of limited use since an expensive apparatus as well as special fluorescent dyestuffs have to be employed. This entails an investment too large for the average clinical laboratory, considering the limited field which fluorescence microscopy offers.

Pothmann,<sup>2</sup> in search for a less expensive procedure which would not involve difficult staining technics, investigated the possibilities of luminescence microscopy which was introduced by Hoffmann<sup>3</sup> in 1912. This method employs the dark-field illumination for examination of stained preparations, stained and unstained tissue sections, spirchetes, as well as molds and bacteria. Keining<sup>4, 5</sup> used Hoffmann's procedure for studies of microorganisms and could observe that tubercle bacilli were seen in greater number in the darkfield illumination and that even understained bacilli could be visualized which otherwise were overlooked by brightfield examination. Smears of tuberculous material stained by the Ziehl-Neelsen method, negative upon brightfield examination, were positive when examined by the luminescence method. Silberstein,<sup>6</sup> and especially Zorn,<sup>7</sup> confirmed the quantitative superiority of the darkfield examination and reported the ratio in favor of the latter to be respectively, 3 to 1 and 2.2 to 1. Since both methods, fluorescence microscopy and Hoffmann's luminescence method, resulted in better diagnosis of tubercle bacilli, Pothmann investigated which was the more reliable. He found in smears from the same material stained with auramine for fluorescence microscopic examination and Ziehl-Neelsen for Hoffmann's luminescence method, one-third less organisms in the latter. The inferiority of the Ziehl-Neelsen stain to other staining methods in brightfield illumination is well known, and the problem arose whether by a qualitative better staining process an improvement of the luminescence method could be obtained. The author therefore employed a staining method developed by Osol which, according to Johannson,<sup>8</sup> yielded more than half as many more organisms in the brightfield examination than Ziehl-Neelsen preparations.

Since Ehrlich's introduction of aniline dyes as biologic stains, our standard technics have been empirically developed. Johannson had studied the fundamentals of bacterial staining experimentally. He divided the commonly employed reagents into three groups:

- (1) Water, hydrogen, peroxide, alcohol, acetone, boric acid, formalin, and probably all organic acids.

- (2) Strong mineral acids, potassium hydroxide, ammonium hydroxide, sodium sulfite, calcium hypochlorite.

- (3) Iodine (Lugol's solution) and most of the salts.

Reagents of group one acted as diluents upon staining solutions. When slowly and carefully added to a dye, a slight darkening of the clear staining solution was seen. This, however, disappeared when shaken and did not seem to affect the



staining process. Group one acted upon a dye purely as a physical agent, decolorizing by washing out the dye. Group two forms a precipitate. The color becomes dark (nontransparent), black, dark red, or dark purple. The precipitate, however, dissolves in an excess of the reagent, stain becomes clear, and decolorizes. Often the dark phase of this process is overlooked and decolorization takes place immediately. Small amounts of reagents of group two therefore enhance the stain, while large quantities destroy it. Group two acts as a chemical alterant. Group three also forms a precipitate but it does not dissolve in an excess of the reagent (Gram's stain and its modification, and Much's granula stain are based upon it). If, however, reagents of group one are added to the dyes which have become nontransparent by treatment with reagents of group three, precipitates are dissolved, stain becomes red or, in the case of a purple dye, violet. Furthermore, stains decolorized by reagents of group two regain their color if the excess of decolorized reagents is not too great. This shows the importance of a good washing with water which dilutes the acid in decolorized bacilli and thus enables recovery of color. Alcohol has the same effect; there is danger, however, that dye residuals might be washed out with the stronger solvent. After having decolorized the stain with a mineral acid (group 2), the addition of Osol's solution (sodium sulfite), sodium hydroxide, potassium hydroxide, or ammonium hydroxide, will produce a dark precipitate which under further addition of the above reagents will turn red and with dyes of the violet group purple, and finally becomes colorless. The Osol method utilizes this phenomenon and that is its advantage over the Ziehl stain. Decolorization and subsequent recovery of the stain are much more easily observed with carbolfuchsin than with the darker violet stain.

The staining process with the Ziehl method is as follows: The carbolfuchsin stained slide becomes dark and finally yellow and decolorized with sulfuric acid. In thin places this happens fast and the dark phase is easily overlooked; in thicker places the acid cannot penetrate as fast and thus decolorizes rapidly and a darkening is seen. Also, into acid-fast bacilli sulfuric acid cannot penetrate in sufficient quantity to decolorize, but in a sufficient amount to intensify the stain or even to darken the bacilli. A dye-precipitate is formed in organisms which have been boiled, a more intense red color develops in those which have been stained under steaming. If now the decolorized slide is washed in water, it becomes more or less red. The organisms become lighter in tone, and part of them will be decolorized and lost for observation. Final-

ly a counterstain with methylene blue effects a strong contrast-preparation but causes the loss of some more bacilli.

The Osol stain now recovers those bacilli which have been decolorized but still contain enough carbolfuchsin to regain their color through addition of sodium sulfite. Bacterial counts by Johansson showed that more than half of all tubercle bacilli are so weakened in their acid-fastness and decolorized so far by sulfuric acid that they cannot be visualized by the Ziehl method. There is likely a loss of bacilli in Osol stained preparations in comparison with those which have been treated with sulfuric acid only, thus methylene blue might cover some organisms but is not solely responsible for the smaller yield in Ziehl stained smears. Johansson also observed the protective action of sputum, since thick places seem to hinder proper penetration of reagents. Washing experiments gave proof of the laminar structure of the tubercle bacilli. They showed also the rapid autolysis of killed tubercle bacilli while living bacteria are much more resistant to chemicals and therefore more difficult to stain.

#### TECHNIC OF OSOL'S STAIN

The fixed smear is covered with carbolfuchsin which has been brought to the boiling point two to three times. Decolorization is brought about with 5 per cent sulfuric acid. After washing with water, the smear is treated with the Osol solution<sup>1</sup> or ammonium hydroxide for ten to fifteen seconds.

#### TECHNIC OF LUMINESCENCE METHOD

Zeiss cardioid condensor, oil-immersion (90/1.25-0.8) objective with iris and paraplane oculars were used which guarantee an evenly sharp image at the periphery. Through the simple use of the iris diaphragm, the control and comparison of the brightfield is easily obtained. For dark-field examination the diaphragm should be closed. For brightfield examination the diaphragm should be opened (1.25). This brightfield examination cannot be considered equal to the usual brightfield method; however it allows observance of the specific red staining of the tubercle bacilli. As light source, a two hundred and fifty watt Mazda projector bulb in a Zeiss Sphaerolux Lamp was used. The nonacid-fast material, like cells and mucus, usually is easily recognizable and helps in focusing the field in case of tuberculous negative material.

#### MATERIAL<sup>2</sup>

Smears were made from phenolized specimens which had been autoclaved. Pooled as well as

1. Osol solution: 10 per cent Sodium Sulfite solution (20.0 Alcohol absol. or 96 per cent Alcohol to 100 cubic centimeters of liquid). This solution does not keep very well.

2. I wish to thank Dr. I. H. Borts and the State Hygienic Laboratory and Dr. Alfred Adler, State Sanatorium, Oakdale, who kindly furnished the material.

individual specimens were stained with Osol's solution and examined under bright- and darkfield illumination. Following are the bacterial counts.

Number of fields	Average Organisms Per Field		Ratio
	Darkfield	Brightfield	
300	17.7		2.1:1
300		8.8	
100	53.93		2.2:1
100		24.82	
100	73.82		2.6:1
100		28.21	

This gives the luminescence method an average advantage of 2.3:1 over the brightfield method. Ratios reported by previous authors are as follows in favor of the luminescence method:

Silberstein .....	3:1
Zorn .....	2.2:1
Pothmann .....	2.2:1

Pothmann also found that Osol's stain changed the ratio of 1.3:1 in favor of the fluorescence method to 1.1:1 in favor of the luminescence method.

Tubercle bacilli are a brilliant yellow-green color against a dark background and are easily recognized (Fig. 1). The Osol preparations show many very short and sometimes pointlike tubercle bacilli

which are rarely seen in Ziehl-Neelsen smears. Those are apparently fragments of bacilli. In general, bacilli are said to appear brighter and larger than under the fluorescence microscope. This might be due to the fact that the whole spectrum is used for illumination and not the ultra-violet band alone. The darkfield examination can best be applied to organisms of considerable length and small width (Didion<sup>9</sup>). Objects which have even dimensions in all directions do not offer any advantage to the brightfield method since their resolving power is too small.

There has been a difference of opinion in regard to the cause of the luminescence phenomenon. It is well known that corpuscular elements observed in the darkfield examination are visible in unstained preparations while bacilli cannot be seen unless they have been changed through the staining procedure. Berek<sup>10</sup> considers the luminescence phenomenon a selective interference for which he keeps responsible the relative progression of dispersion of the refractory and absorptive indices. Pothmann considers it a mirror effect, respectively a reflection of light at the lipid membranes of bacilli. However, experiments in which lipoids have been removed and the fuchsin stain has been employed showed the presence of luminescence and thus seemed to disprove the assumption of a mirror effect. It is likely that a gridlike structural change of the surface during one phase of the staining process, together with impregnation of the dye, explains the phenomenon. It is interesting to know that the luminescence in the complementary color was first thought to be fluorescence by Hoffmann and Oelze.

The greater yield of organisms with the fluorescence method in comparison to the luminescence method using Osol's stain still makes the latter the method of choice. The technical simplicity which allows comparative bright- and darkfield examination, the greater visibility and ease of observation of the light green shining bacilli, and the adaptability to the laboratory of the small hospital or practitioner should be an inducement to examine material suspicious of tuberculosis with this new and simple diagnostic method.

BIBLIOGRAPHY

1. Hagemann, P. K. H.: Fluoreszenzmikroskopische Untersuchungen über Virus- und andere Mikroben. Zentralbl. f. Bakt. (Abt. 1, Beihft.) cxl:184-187, 1937.  
2. Pothmann, F. J.: Vergleichende Untersuchungen mit der Leuchtbildmethode und dem Fluoreszenzmikroskop zum nachweis der Tuberkelbazillen bei gleichzeitiger Kontrolle im Hellfeld. Arch. f. Hyg., cxxv:148-161, 1940. Abstr., Deutsche med. Wchnschr., lxxvi:1301-1303 (November 22) 1940.  
3. Hoffmann, Erick: Spirochetes in dark-field microscopy. Deutsche med. Wchnschr., xlvii:65 (January 20) 1921.  
4. Keining, E.: Hoffmann's illumination procedure for study or micro-organisms; especially for demonstration of tubercle bacilli in fixed, stained preparations. München. med. Wchnschr., lxxviii:131 (February 4) 1921.  
5. Keining, E.: Addendum to article on Hoffmann's darkfield method. München. med. Wchnschr., lxxviii:458 (April 15) 1921.  
6. Silberstein: Practical value of E. Hoffmann's illumination method. Deutsche med. Wchnschr., xlvii:775 (July 7) 1921.



Fig. 1. Darkfield luminescence microphoto magnified 900 times.



7. Zorn, W.: Die quantitative Ueberlegenheit der Leuchtbildmetbode mach Hoffmann gegenüber der Helffeldbetrachtung von Tbc.—Bazillen. *Centralbl. f. Bakteriologie*. (etc.) I. Abt., Jena, 1922, Orig., lxxxviii:95.
8. Johansson, A.: Die Grundlagen einiger Bakterienfärbungen. *Zentralbl. f. Bakt.* (Abt. 1) cxli:424-442 (June 20) 1938.
9. Didion, H.: Über den fluoreszenzmikroskopischen Nachweis von Tuberkelbakterien. *Klin. Wechschr.*, xviii:1315-1318 (October 7) 1939.
10. Berek, M.: Die optischen Grundlagen für die Sichtbarmachung gefärbter Mikroorganismen im Dunkelfeld. *Berl. klin. Wechschr.*, lviii:740, 1921.

## MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

### Meeting of the Iowa Interprofessional Association September 10, 1944

The Iowa Interprofessional Association held its annual meeting at the Hotel Fort Des Moines in Des Moines Sunday, September 10, 1944, with representatives present from the Iowa Dental Society, Iowa State Association of Registered Nurses, Iowa Pharmaceutical Association, Iowa Veterinary Medical Association, Iowa State Medical Society, and the Iowa Hospital Association.

The secretary, Dr. A. L. Jenks, Jr., reported on the work of the Association during the previous year, particularly the work of the steering committee on the Murray-Wagner-Dingell bill. The report of the treasurer showed a comfortable balance on hand for the work of the Association in the coming year.

The difficulty of carrying on an extensive program during wartime was discussed, and it was decided to continue the steering committee and empower it to act as a public relations committee during the coming year. The Iowa Hospital Association asked the interprofessional group to send a speaker to its annual meeting; and it was voted that this should be done, and in addition that each component group have a speaker on interprofessional relations at the respective annual meetings. The annual program meeting of the Association was left unchanged and the invitation of the dentists to meet with their Society in 1945 was accepted.

Dr. Bernard and Dr. Billingsley reported to the group on the proposed medical service plan under consideration by the medical profession.

Members of the Executive Council elected were: Dr. F. W. Pillars of the Iowa State Dental Society, Mrs. Vivian Walkup of the Iowa State Association of Registered Nurses, Dr. Walter G. Port of the Iowa Veterinary Medical Association, Mr. L. L. Eisentraut of the Iowa Pharmaceutical Association, and Dr. A. L. Jenks, Jr., of the Iowa State Medical Society. New officers were elected as follows: Dr. George A. Hawthorne of Clarinda, president; Mr. Dallas Bruner of Des Moines, vice president; and Dr. F. W. Pillars of Des Moines, secretary-treasurer.

### Meeting of the Medical Economics Committee and Committee on Medical Service and Public Relations September 10, 1944

The Medical Economics Committee and the Committee on Medical Service and Public Relations met

in Des Moines Sunday, September 10, 1944, at nine a. m. to hear the report of the Subcommittee on Medical Service Plans. Present were the following persons: Doctors Martin I. Olsen of Des Moines, John A. Thorson of Dubuque, Herbert E. Stroy of Osceola (Subcommittee members); Doctors M. C. Hennessy of Council Bluffs, R. D. Bernard of Clarion, L. R. Woodward and H. D. Fallows of Mason City, J. E. Reeder, R. N. Larimer, C. T. Maxwell, and E. H. Sibley of Sioux City, Ira N. Crow of Fairfield, J. A. Downing and Mr. E. M. Kingery of Des Moines.

Dr. Olsen, chairman of the subcommittee, read the proposed Articles of Incorporation, changing them in accord with suggestions by those present. The same procedure was followed in considering the By-Laws, the Agreement with Participating Physician, and Subscriber's Contract. A thorough discussion was entered into by everyone present; the fee schedule was also analyzed and changes were suggested.

It was felt that every member of the State Society should receive information about the plan before the special meeting of the House of Delegates, and it was with that thought in mind that the meeting broke up at five-thirty.

The last half-hour of the meeting was given over to Mr. Edward F. Stegen of the National Physicians Committee, who explained the work now being done by the NPC and what was desired of Iowa.

## IOWA STATE SOCIETY FOR MENTAL HYGIENE MEETS OCTOBER 28

The first general meeting of the Iowa State Society for Mental Hygiene will be held Saturday, October 28, 1944, at the Kirkwood Hotel in Des Moines. The meeting, which will open at 2:00 p. m., will include an afternoon and evening session, with dinner at 6:30 p. m.

The program is to be devoted entirely to the subject of "Rehabilitation," and the speakers will be of national prominence in different fields of mental hygiene.

A complete program will be issued early in October.

## SOUTHERN MEDICAL ASSOCIATION TO MEET IN ST. LOUIS

The Thirty-Eighth Annual Meeting of the Southern Medical Association will be held in St. Louis, Missouri, November 13 to 16, 1944. The meeting, a streamlined wartime meeting, will formally open at noon on Monday, November 13, the scientific activities beginning at 2:00 p. m. and continuing through Thursday afternoon, November 16. All official activities—registration, scientific meetings, scientific, technical and hobby exhibits, and the sessions of organizations meeting conjointly with the Southern Medical Association—will be in the Municipal Auditorium.

An invitation to attend has been extended to the Iowa State Medical Society and will be found on page ix of this issue. A complete program can be secured by writing the Southern Medical Association, Empire Building, Birmingham 3, Alabama.

STATE DEPARTMENT OF HEALTH

*Walter L. Diering*

A **FOODBORNE OUTBREAK OF GASTRO-ENTERITIS CAUSED BY STAPHYLOCOCCUS TOXIN**

A group of 52 persons, including 29 riders, their guests and assistants, made a trip on horseback or by car from Ely in Linn County to Marengo in adjoining Iowa County and return, on September 3 and 4, 1944. Ham sandwiches, previously prepared by a committee of three women, were served at noon on September 3. In the evening of that day, all had chicken dinner served at one of the Amana Colonies.

On Monday morning, September 4, pineapple juice, fresh eggs and bacon constituted the breakfast at Marengo before starting the return trip. From 11:30 a. m. to noon Monday (Labor Day) members of the group partook of ham sandwiches which had been brought along the previous day. About two and one-half hours afterward, two young persons, ages 11 and 14, were seized with nausea and vomiting. Shortly thereafter and within three hours after eating the sandwiches, many of the adults became violently ill. Symptoms were characterized by nausea, vomiting, weakness (bordering on collapse in some instances), followed by abdominal distress and diarrhea. Physicians and ambulances were summoned from Cedar Rapids, about ten miles distant from the country road where illness developed. Many of the patients were hospitalized; others remained at the farm where the stables are located and from which the ride was begun. Most of the victims felt weak but were well enough to leave bed or hospital the next day, although several were sick for three days.

Number Exposed—Number Attacked

Investigation of this epidemic of gastro-enteritis was made in cooperation with V. H. Hasek, M.D., City Health Officer of Cedar Rapids; A. R. Menary, D.V. M., Milk and Meat Inspector of that city, and with the aid of other individuals who furnished valuable information.

The following table shows age groups involved, the number exposed, the number and percentage of those attacked and of those who escaped illness:

Age Group	Total		Attacked		Escaped	
	No.	Per cent	No.	Per cent	No.	Per cent
10-19	6	100	5	84	1	16
20-29	14	100	7	50	7	50
30 and over	32	100	16	50	16	50
All ages	52	100	28	54	24	46

Among 52 persons who were exposed, 28 or 54

per cent suffered illness. The attack rate was 84 per cent among those under twenty and 50 per cent among persons above that age.

Nature and Vehicle of Infection

The explosive character of the outbreak and the short incubation period (two and one-half to three hours) made it appear highly probable that illness was due to a toxin-producing strain of Staphylococcus. The sandwiches contained butter and slices of ham. Two hams, each weighing over sixteen pounds, were sliced in the making of sandwiches. The hams had previously been tenderized and baked for three and one-half hours in an oven at a temperature of 410° Fahrenheit.

Laboratory Findings

Some of the left-over sandwiches and part of the ham itself were forwarded to the State Hygienic Laboratory. Direct smears from different pieces of ham showed large members of the organisms; on examination and culture these proved to be hemolytic Staphylococcus aureus.

Lack of Refrigeration Chief Factor in Outbreak

The exact manner in which the hams were contaminated remains undetermined. The sandwiches were not refrigerated from one day to the next but remained at outdoor temperature during the course of a hot day and through the night which followed, thus permitting the organisms to multiply and to exert their toxic effect.

PREVALENCE OF DISEASE

Disease	Aug. '44	July '44	Aug. '43	Most Cases
				Reported From
Diphtheria .....	8	11	14	Woodbury
Scarlet Fever ....	54	68	65	Pottawattamie, Polk, Dubuque
Typhoid Fever ...	7	5	6	Chickasaw, Decatur, Dubuque
Smallpox .....	0	0	0	
Measles .....	23	100	28	Des Moines, Pottawattamie, Woodbury
Whooping Cough .	29	39	144	Des Moines, Cedar, Woodbury
Brucellosis .....	32	47	39	Black Hawk, Mitchell
Chickenpox .....	17	16	8	Cedar, Dubuque
German Measles..	1	3	3	Calhoun
Influenza .....	0	0	0	
Malaria .....	49	29	1	Clinton, Page
Meningitis .....	7	8	10	Lee, Linn
Mumps .....	49	78	33	Johnson, Dubuque, Black Hawk
Pneumonia .....	8	2	9	Davis, Polk
Polio myelitis ....	48	16	35	Polk, Jasper, Dallas, Linn, Story Woodbury
Tuberculosis .....	60	108	54	For the State
Gonorrhea .....	200	214	186	For the State
Syphilis .....	150	128	204	For the State



# The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

LEE FORREST HILL, Editor.....Des Moines  
DENNIS H. KELLY, Associate Editor.....Des Moines

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## IOWA MEDICAL SERVICE PLAN

The committee appointed by President Hennessey last April to prepare a prepayment, non-profit medical service plan for Iowa has completed its preliminary work and has submitted to every individual member of the Iowa State Medical Society (including physicians in military service) an abstract of the plan proposed. Shortly the House of Delegates will be called to a special session to consider the plan in detail and to place its official stamp of approval upon a final draft. This is perhaps the most important matter that has ever confronted Iowa physicians as a group. It is medicine's answer to the demands of the people for security against disaster from catastrophic and unexpected illness. The government proposes to meet the same demand through compulsory insurance. There is no question but that medicine's voluntary non-profit insurance plan is vastly superior to any governmental, politically dominated, compulsory insurance program, both from the point of view of the physicians who render the service and of the people who receive the service. But, and there should be no dodging of this issue, the people are going to have one plan or the other. If we as physicians wish to avoid state medicine, the opportunity lies immediately before us. The task that confronts us is not an easy one. Hard work and clear thinking beyond the ends of our noses are essential if we are to make the Iowa medical service plan a success. That it can be made a success, and a growing success, we have no doubt, for there is affirmative precedent from many other states. But the wholehearted, harmonious cooperation of every Iowa physician must be forthcoming in order to demonstrate

conclusively that private enterprise can be organized to meet the demands of changing socioeconomic conditions among our people. Let us not permit the forest to be obscured by the trees in our deliberation, and let us not wreck the ship at its launching.

We asked Dr. Martin Olsen, chairman of the committee, to prepare some explanatory remarks about the proposed plan for publication in the JOURNAL's editorial columns and we are pleased to submit the following remarks from him:

"In the rapid development which has taken place in the science of medicine it would not be surprising if we discovered a lag in the distribution of the service that we as a profession have to offer. Surveys made during the past decade or two by social and governmental agencies purport to show an inadequacy in medical care for certain sections of the country and segments of our population. Remedies are being offered, which in the final analysis, will result in the complete socialization of our profession, a condition most subversive to our traditional American order and detrimental in high degree to the science and practice of medicine.

"It should be recognized, however, that in a rapidly changing world new and complex conditions arise, and that to meet these certain adjustments in our relationships to the public and our clientele may be necessary.

"The matter of establishing a medical service plan involves so many new factors and is in some respects so great a departure from accepted practices that a word of explanation through the columns of the JOURNAL may be justified.

"Medical service plans follow the pattern of insurance generally. The insurer contracts to supply certain specified benefits or services for which the insured pays a stipulated premium. In our case the insurer is the body of participating physicians who supply the medical services. Unlike life and other insurance institutions, medical service plans have little in the way of experience to serve as a guide in establishing premium rates known to be adequate for specified benefits. Furthermore, there must be a full recognition of the fact that medical service plans differ in very essential particulars from insurance companies generally. Our type of organization is established on a non-profit basis with medical service as the main benefit granted, thus taking on a pronounced social aspect. We pay in no capital except the small amount necessary to form the plan and no surplus is available. A reserve from which to meet unusual or excessive benefit payments becomes available only after a period of successful operation. It must be apparent that the physicians who organize and

serve the plan must also be willing to underwrite it and guarantee the carrying out of its commitments. Without an agreement on the part of physicians participating in the plan to accept payment for services on a prorated basis if funds are not available, it becomes wholly unworkable. In the last analysis, the profession must accept full responsibility for the solvency of the plan.

"The primary purpose in organizing the plan is to insure to the lower income groups adequate medical care and on a cost basis within the reach of all. For these individuals there must be complete financial security from the catastrophies arising out of illness, and the plan must provide full coverage to the extent set out in the contract. From this it follows that the participating physicians in dealing with individuals in the lower income brackets must agree to accept as payment in full for their services such fees as are set out in the schedule of fees in effect in the plan.

"It will be noted that no provision is made for the indigent, the unemployables, and the unemployed. We may assume that for this group medical care will be supplied by way of tax supported funds and voluntary contributions as has been done to the present time. Our profession will lend its full support and willingly render service to this group as it always has done. In doing so we again affirm our position that every individual who has income equal to or above the subsistence level should assume full responsibility for his own economic security and welfare, and the suggested plan offers just this in medical care.

"In the case of an individual whose income may exceed the limits stated in the subscriber's contract the question of total fee for medical services is arrived at by the surgeon and patient in the usual manner, and the fee set out in the schedule is merely in the nature of an indemnity or credit to be applied on account. The plan does not in any way affect the usual physician-patient relationship except as related to medical fees for the lower income groups.

"The contract limits to a certain extent the benefits and services to which the subscriber is eligible. As experience is gained and an adequate reserve built up, it is hoped that the benefits to the subscriber may be enlarged and extended. It has been the experience of all service (and one may include hospital) plans that an excessive utilization takes place in the earlier months following enrollment. This of necessity places an undue strain on the plan during the period when it is less able to stand the high utilization. The plan is set up to withstand normal utilization but not the shock of abuse. The control of this can be exercised by the participating physician only, and the

success or failure of the plan rests largely with the loyalty and cooperation extended to it by the profession."

#### THE RED CROSS STREAMLINES HOME NURSING PROGRAM

The imperative needs of the armed forces have drained our communities of medical and nursing personnel, yet the home front continues to tax the time and strength of our reduced ranks. Since no repletion of our ranks is in sight, we must welcome and encourage one source of supplemental strength; namely, the training of the homemaker to carry out our orders. The Red Cross has this in mind in its recent development of a streamlined Home Nursing program, "Six Lessons in Care of the Sick."

Home Nursing itself has been a program of the Red Cross since 1913, developed to extend and supplement medical and nursing service in isolated areas. The new course is not intended to replace the standard full length course, but is devised to use intelligently the limited medical and nursing resources that are available.

Using teaching methods which unite Red Cross nursing procedures with the precision methods of presentation developed by the "Training Within Industry" service of the War Manpower Commission, classes are organized with one purpose in mind, to give instruction on simple nursing skills quickly and safely to as many women as possible. Classes are limited to ten students each, since a larger enrollment would not permit adequate practice time for each student.

Covered in the short course are thirty-two fundamental nursing procedures most useful in caring for the sick at home. Lesson topics are: When Sickness Occurs, The Patient Goes to Bed, The Clean and Well-Groomed Bed Patient, Food and Medicine for the Sick at Home, Simple Treatments Ordered by the Doctor, and Care of the Sick and Control of Communicable Disease.

Before we raise our eyebrows at the title of the fourth lesson, "Food and Medicine for the Sick at Home," let us examine that section. We will find that it concerns an understanding of orders, such as "Light Diet," or "Liquid Diet without Milk." We find that "Medicine" concerns the administering of that which has been ordered.

Instructors, who are always graduate nurses, receive intensive special preparation before being authorized to teach this emergency program. This preparation is necessary to insure their adherence to the precision method of presentation and supervised practice. In order to maintain the high and absolutely uniform standard of teach-



ing established by the Red Cross, each instructor is under close supervision, not only of her local chapter but also of the skilled consultants from the Red Cross Headquarters. To date only Polk and Linn Counties have trained instructors for these classes, but many other counties have concrete plans for this program in the near future. Your county may be one of them.

Mrs. America has her hands full. As physicians we can do much to urge her to spend twelve hours of her precious time on a course that will be of material benefit to her and a time saver to us. As has been said, "The basic job of keeping Americans healthy must be done in the homes."

The JOURNAL believes physicians will be interested in this wartime effort of the Red Cross to make available to the women in the homes a concentrated, intensive and well prepared course of instruction in home nursing procedures which has as one of its primary purposes saving time for the physician.

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#### THE VITAMIN ERA

Whether or not the crest of the wave in the advertising, sale, and ingestion of commercial vitamins has been reached can only be surmised, but certainly the height to which the public craze has gone is astounding. Sales of vitamins in drug stores now constitute the largest single item, and even separate stores whose exclusive product is vitamins are being established. Propaganda over the radio makes one wonder how this human race ever got along in the old days without the aid of "pills."

No one questions the importance of vitamins in the field of nutrition, but it would appear that the wise provisions of nature for meeting these needs in foods are receiving scant attention. Knowledge concerning vitamins, the average daily requirements, and the extent to which these requirements can be met through natural foods has now developed to a point where the chief effort should be diverted toward making this knowledge easily available and understandable to every housewife.

The recommendations of the National Research Council and of the Food and Drug Administration, which can be accepted as authoritative, for daily allowances are as follows: 4,000 to 5,000 units of vitamin A; 400 to 800 units of D; 30 to 75 milligrams of C; 1 to 2 milligrams of B<sub>1</sub> (thiamine hydrochloride); 2 to 3 milligrams of B<sub>2</sub> (riboflavin); and 20 milligrams of niacinamide (nicotinic acid). The present policy of commercial firms seems to be to put on the market vitamin mixtures approximating the above values at a cost varying from three to six or eight cents a

day per person. There is, it must be admitted, evidence that the average American diet is deficient in certain vitamin requirements, but it is also known that by properly selecting foods full vitamin allowances can be met without recourse to commercial preparations (with the exception of the fish liver oil vitamins A and D). For instance, 100 grams of whole wheat, whether in the form of bread or cereal, supply approximately one-fourth of the vitamin B content need with the exception of riboflavin. A pint of milk, on the other hand, supplies more than one-third of the average adult daily requirement of riboflavin so that by daily use of merely these two foods alone the housewife can go a long way in meeting the vitamin needs of her family. The money which the public could save in a single year by doing a little homework in studying the vitamin content of foods and using this source would amount to a tidy sum indeed.

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#### SULFADIAZINE IN THE PREVENTION OF RESPIRATORY TRACT BACTERIAL INFECTIONS

Previously in these columns we have called attention to the use of sulfadiazine in rheumatic fever subjects to prevent recurrences during the winter months and to the use of sulfadiazine in army camps over a three day period to stop threatened epidemics of meningococcic meningitis. Now Commander A. F. Coburn reports in the September 9 issue of the *Journal of the American Medical Association* on the use of this drug to check outbreaks of streptococcic infections in naval camps. However, unlike the short three day course of administration of sulfadiazine which was found effective in controlling meningococcic outbreaks, Coburn stressed that in order to control streptococcic prevalence in camps it was necessary to administer sulfadiazine continuously. The amount of sulfadiazine given was a daily dose of 1 gram which gave blood values ranging between 2.6 and 1.7 milligrams per hundred cubic centimeters of blood. Even a daily dose of a half gram of sulfadiazine yielding blood values from 1.8 milligrams to 0.8 milligram was found to be 85 per cent effective in preventing implantation by *Streptococcus haemolyticus*. Harmful reactions were almost totally absent in this experimental study involving 250,000 naval trainees with observations on 30,000 men in three different camps. Coburn concludes that mass sulfadiazine prophylaxis is effective in checking bacterial infections of the respiratory tract and in preventing the development of disabling sequelae caused by these bacteria.

Naturally the report of this experience will at

(Continued on page 449)

# Roster of Iowa Physicians in Military Service

As of September 25, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (APO 230, New York, N. Y.) ..... Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) ..... Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.) ..... A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) ..... Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Camp Ellis, Ill.) ..... Capt., A.U.S.  
Huston, M. D., Centerville (Camp Bowie, Texas) ..... Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) ..... Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) ..... Capt., A.U.S.  
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) ..... Capt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas) ..... Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Ottumwa, Iowa) ..... Lt. Comdr., U.S.N.R.  
Ericsson, M. G., Cedar Falls (Camp Barkeley, Tex.) ..... Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.) ..... Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
Ludwick, A. L., Waterloo (Abilene, Texas) ..... Major, A.U.S.  
Marquis, F. M., Waterloo (APO 923, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, Los Angeles, Cal.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Banana River, Fla.) ..... Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.) ..... Major, A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.) ..... Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 612, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Ames, Iowa) ..... Lt., U.S.N.R.

## Boone County

Brewster, E. S., Boone (Camp Campbell, Ky.) ..... Major, A.U.S.  
Healy, M. J., Boone (Camp Chaffee, Ark.) ..... Capt., A.U.S.  
Shane, R. S., Pilot Mound (Des Moines, Ia.) ..... Lt. Col., A.U.S.

## Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.) ..... Major, A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.) ..... 1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.) ..... Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (APO 9787, New York, N. Y.) ..... Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.) ..... Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho) ..... Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) ..... Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.) ..... Major, A.U.S.

## Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash.) ..... Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.)  
Rofa, F. O., Parkersburg (Springfield, Mo.) ..... 1st Lt., A.U.S.

## Cathoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.) ..... Capt., A.U.S.  
McVay, M. J., Lake City (Waco, Texas) ..... Capt., A.U.S.

Peek, L. H., Lake City (Jefferson Barracks, Mo.) ..... Capt., A.U.S.  
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (APO 15260, San Francisco, Cal.) ..... Capt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Barkeley, Texas) ..... A.U.S.  
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) ..... Capt., A.U.S.  
Cochran, J. L., Carroll (Gulfport, Miss.)  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Ft. Dix, N. J.) ..... Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.) ..... Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.) ..... A.U.S.  
Tindall, R. N., Coon Rapids (Hines, Ill.) ..... Major, A.U.S.  
Wyatt, M. R., Manning (De Ridder, La.) ..... Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (APO 218, New York N. Y.) ..... Major, A.U.S.  
Needles, R. M., Atlantic (APO 131, New York, N. Y.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.) ..... Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) ..... Lt., U.S.N.R.  
Mosher, M. L., West Branch (APO 560, New York, N. Y.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Camp Bowie, Texas) ..... Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) ..... Capt., A.U.S.  
Egloff, W. C., Mason City (Chandler, Ariz.) ..... Capt., A.U.S.  
Flickinger, R. R., Mason City (Tuscaloosa, Ala.) ..... Capt., A.U.S.  
Hale, A. E., Dougherty (Camp Forrest, Tenn.) ..... Capt., A.U.S.  
Harris, R. H., Mason City (Dyersburg, Tenn.) ..... Capt., A.U.S.  
Harrison, G. E., Mason City (APO 365, New York, N. Y.) ..... Col., A.U.S.  
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (Ayer, Mass.) ..... Capt., A.U.S.

## Cherokee County

Bullock, G. D., Washta (Camp Claiborne, La.) ..... Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) ..... Major, A.U.S.  
Murfhey, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) ..... Major, A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.

## Clay County

Edington, F. D., Spencer (Fort Devens, Mass.) ..... Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.) ..... Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Gleene, O. G., Monona (Knoxville, Iowa) ..... Capt., A.U.S.  
Rhomberg, E. B., Guttenberg (APO 584, New York, N. Y.) ..... Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Portland, Ore.) ..... Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.) ..... A.U.S.  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) ..... Capt., A.U.S.  
Hill, D. E., Clinton (APO 9787, New York, N. Y.) ..... Capt., A.U.S.  
King, R. C., Clinton (APO 403, New York, N. Y.) ..... Capt., A.U.S.



Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Norment, J. E., Clinton (Washington, D. C.) ..... Lt. Comdr., U.S.N.R.  
 Riedesel, E. V., Wheatland (Fort Douglas, Utah) ..... Capt., A.U.S.  
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Snyder, D. C., De Witt  
 Speigel, I. J., Clinton (Galesburg, Ill.) ..... Capt., A.U.S.  
 Van Epps, E. F., Clinton (APO 9921, New York, N. Y.) ..... Capt., A.U.S.  
 Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Wells, L. L., Clinton (APO 17172 New York, N. Y.) ..... Capt., A.U.S.

#### Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.) ..... Major, A.U.S.  
 Grau, A. H., Denison, (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maire, E. J., Vail (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.) ..... Capt., A.U.S.

#### Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Hines, Ill.) ..... 1st Lt., A.U.S.  
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) ..... Major, A.U.S.  
 Fail, C. S., Adel (Pacific Beach, Wash.) ..... Lt., U.S.N.R.  
 Margolia, J. M., Perry (APO 5816, New York, N. Y.) ..... Capt., A.U.S.  
 McGilvra, R. I., Guthrie Center (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mullmann, A. J., Adel (Camp Ellis, Ill.) ..... Capt., A.U.S.  
 Nicoll, C. A., Panora (Camp Campbell, Ky.) ..... Capt., A.U.S.  
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.) ..... Capt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.) ..... Capt., A.U.S.

#### Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.) ..... Capt., A.U.S.  
 Gilfillan, G. W., Bloomfield (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.) ..... Capt., A.U.S.

#### Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Clark, R. E., Manchester (APO 419, New York, N. Y.) ..... Capt., A.U.S.

#### Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio) ..... 1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.) ..... Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.) ..... Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (Fort Lewis, Wash.) ..... Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.) ..... Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sage, E. C., Burlington (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henning, G. G., Milford (APO 96, San Francisco, Cal.) ..... Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.) ..... Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake (APO 600, New York, N. Y.) ..... Major, A.U.S.

#### Dubuque County

Beddoes, M. G., Cascade (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Conzett, D. C., Dubuque (APO 645, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio) ..... Capt., A.U.S.  
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.) ..... Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas) ..... 1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.) ..... Major, A.U.S.  
 Langford, W. R., Epworth (Miami Beach, Fla.) ..... Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.) ..... Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.) ..... 1st Lt., A.U.S.  
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.) ..... Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.) ..... Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.) ..... Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.) ..... Major, A.U.S.  
 Smith, C. W., Dubuque (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.) ..... Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas) ..... Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Great Lakes, Ill.) ..... Lt. Comdr., U.S.N.R.

#### Emmet County

Clark, J. P., Estherville (APO New York, N. Y.) ..... Capt., A.U.S.  
 Collins, L. E., Estherville (Camp Dodge, Iowa) ..... A.U.S.  
 Miller, O. H., Estherville (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.) ..... Major, A.U.S.  
 Sulzbach, J. F., Oelwein  
 Walsh, W. E., Hawkeye (Port Chicago, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.) ..... Major, A.U.S.  
 Flater, N. C., Floyd (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mackie, D. G., Charles City (APO 493, New York, N. Y.) ..... Capt., A.U.S.  
 Miner, J. B., Jr., Charles City (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.) ..... Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) ..... 1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.) ..... Lt., U.S.N.R.  
 Walton, S. G., Hampton (APO New York, N. Y.) ..... Capt., A.U.S.

#### Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.) ..... Capt., A.U.S.  
 Marrs, W. D., Tabor (Ardmore, Okla.) ..... Capt., A.U.S.  
 Powell, R. A., Farragut (Great Lakes, Ill.) ..... Lt. (jg), U.S.N.R.  
 Wanamaker, A. R., Hamburg (APO 939, Seattle, Wash.) ..... Capt., A.U.S.

#### Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.) ..... Capt., A.U.S.  
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.) ..... Capt., A.U.S.

Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Limburg, J. I., Jr., Jefferson (APO 503, San Francisco, Cal.) ..... Major, A.U.S.  
 Lohr, P. E., Churdan (Cedar Falls, Iowa) ..... Lt., U.S.N.R.

#### Grundy County

Cullison, R. M., Dike (Fort Howard, Md.) ..... Major, A.U.S.  
 Rose, J. E., Grundy Center (Des Moines, Iowa) ..... Lt. Comdr., U.S.N.R.

#### Hamilton County

Buxton, O. C., Webster City (APO 9921, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.) ..... Major, A.U.S.  
 James, D. W., Kamrar (APO 782, New York, N. Y.) ..... Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 383, New York, N. Y.) ..... Major, A.U.S.  
 Mooney, F. P., Jewell (London, England) ..... Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Barkeley, Texas) ..... Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.) ..... Capt., A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.) ..... Capt., A.U.S.

#### Hancock-Winnebago Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.) ..... Capt., A.U.S.  
 Dulmes, A. H., Klemme (APO 1778, New York, N. Y.) ..... Capt., A.U.S.  
 Eller, L. W., Kanawha (APO 302, New York, N. Y.) ..... Capt., A.U.S.  
 Irish, T. J., Forest City (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Delhart, Tex.) ..... Major, A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.) ..... Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.) ..... Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.) ..... Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Camp Grant, Ill.) ..... Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.) ..... Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.) ..... 1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Camp Pickett, Va.) ..... A.U.S.  
 Burbridge, G. E., Logan (APO 511, New York, N. Y.) ..... Major, A.U.S.  
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.) ..... Capt., A.U.S.  
 Heise, C. A., Jr., Missouri Valley (San Pedro, Cal.) ..... Lt., U.S.N.R.  
 Tamisiea, F. X., Missouri Valley (APO 5934, New York, N. Y.) ..... Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) ..... Major, A.U.S.

Dwankowski, Carl, Mt. Pleasant (APO 505, New York, N. Y.).....Capt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.).....Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (Camp Ellis, Ill.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ordgen, Utah).....Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.  
 Martin, J. W., Holstein (Seymour, Ind.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Seattle, Wash.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

#### Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.  
 Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.  
 Gittler, Ludwig, Fairfield (APO 1001, New York, N. Y.).....Lt. Col., A.U.S.  
 Graber, H. E., Fairfield Galesburg, Ill.....Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

#### Johnson County

Agnew, J. W., Iowa City (Trinidad, Colo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.

Boller, W. F., Iowa City (Fort Leonard Wood, Mo.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.

Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callaban, G. D., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.  
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.  
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Camp Lejeune, N. Car.).....Lt., U.S.N.R.

Dorner, R. A., Iowa City (APO 534, New York, N. Y.).....Capt., A.U.S.

Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Emmons, M. B., Iowa City (Ablene, Texas).....Capt., A.U.S.

Flax, Ellis, Iowa City (APO 5833, New York, N. Y.).....1st Lt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.

Fourt, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.

Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.

Garlinghouse, R. O., Iowa City (APO 302, New York, N. Y.).....Major, A.U.S.

Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.

Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (APO 452, New York, N. Y.).....Capt., A.U.S.

Irwin, K. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.

January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.  
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.

Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.

Laubscher, J. H., Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Longwell, F. H., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.

Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagyfy, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.

Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.

Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.

Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.

Sells, R. L., Jr., Iowa City (Chico, Cal.).....Capt., A.U.S.

Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.

Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.

Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.

Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.

Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.  
 Stump, R. B., Iowa City (Fort Leonard Wood, Mo.).....Capt., A.U.S.  
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.  
 Trapasso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.  
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.).....Capt., A.U.S.  
 Vest, W. M., Iowa City (Fort Missoula, Mont.).....Capt., A.U.S.  
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 923, San Francisco, Cal.).....1st Lt., A.U.S.  
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

#### Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.

Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.

Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.

Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.

Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.

Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.

Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.

Gilliland, C. H., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.

Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Hendricks, A. B., Iowa City (Klamath Falls, Ore.).....Lt., U.S.N.

Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.

Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.  
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.

Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.

Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.

Kelher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.

Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.

McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.

McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.

Moen, B. H., Iowa City.....1st Lt., A.U.S.  
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.

Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.

Pulliam, R. L., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.

Randall, C. G., Iowa City.....Capt., A.U.S.  
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.

Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.

Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.

Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.

Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.

Shapiro, S. I., Iowa City.....A.U.S.  
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.

Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.  
 Skouge, O. T., Iowa City.....Lt., U.S.N.R.

Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.

Watters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.

Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.

Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.

Willmsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.

Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.

Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.

Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.

Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

#### Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.  
 Doyle, J. L., Sigourney (Camp Berkeley, Texas).....A.U.S.  
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.

Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.  
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.

Wiley, Dudley, Hedrick (Mason City, Wash.).....Lt. Comdr., U.S.N.R.

#### Kossuth County

Clapsaddle, D. W., Burt (APO 519, New York, N. Y.).....Capt., A.U.S.

Kenefick, J. N., Alkona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.

Williams, R. L., Lakota (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.



**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) ..... Capt., A.U.S.  
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.  
 Johnstone, A. A., Keokuk (APO, Seattle, Wash.) ..... Col., A.U.S.  
 McKee, T. L., Keokuk (Miami Beach, Fla.) ..... Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.  
 Rankin, J. R., Keokuk (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) ..... Capt., A.U.S.  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) ..... Capt., A.U.S.  
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) ..... Major, A.U.S.  
 Berney, P. W., Cedar Rapids (APO 207, New York, N. Y.) ..... Capt., A.U.S.  
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.) ..... Capt., A.U.S.  
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) ..... Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) ..... A.U.S.  
 Courter, W. O., Springville (APO 464, New York, N. Y.) ..... Major, A.U.S.  
 Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) ..... Major, A.U.S.  
 Dunn, F. C., Cedar Rapids (Kearney, Nebr.) ..... Major, A.U.S.  
 Gearhart, Merriam, Springville (Phoenixville, Pa.) ..... Major, A.U.S.  
 Gerstman, Herbert, Marion (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Halpin, L. J., Cedar Rapids (Atlanta, Ga.) ..... Major, A.U.S.  
 Hecker, J. T., Cedar Rapids (Camp Bowie, Texas) ..... Capt., A.U.S.  
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Keith, J. J., Marion (Menlo Park, Cal.) ..... Major, A.U.S.  
 Kieck, E. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Kruckenberg, W. G., Mount Vernon (Portsmouth, Va.) ..... Lt., U.S.N.R.  
 Leedham, C. L., Springville (APO 465, New York, N. Y.) ..... Col., A.U.S.  
 Locher, R. C., Cedar Rapids (Camp Swift, Texas) ..... Major, A.U.S.  
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) ..... Capt., A.U.S.  
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) ..... Major, A.U.S.  
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) ..... Major, A.U.S.  
 Meffert, C. B., Cedar Rapids (APO 403, New York, N. Y.) ..... Major, A.U.S.  
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) ..... Major, A.U.S.  
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) ..... 1st Lt., A.U.S.  
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) ..... Major, A.U.S.  
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Comdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (APO 5799, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stansbury, J. R., Cedar Rapids (APO 941, Seattle, Wash.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) ..... Lt. Comdr., U.S.N.

**Louisa County**

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Lucas County**

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

**Lyon County**

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Major, A.U.S.  
 †Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Ofag 64, Germany) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Madison County**

Boden, H. N., Truro (Fresno, Cal.) ..... Capt., A.U.S.  
 Chesnut, P. F., Winterset (Salem, Ore.) ..... Capt., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Lt. Col., A.U.S.

**Mahaska County**

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) ..... Major, A.U.S.  
 Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Mare Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) ..... Capt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) ..... Capt., A.U.S.

**Marion County**

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) ..... Major, A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Houston, Texas) ..... 1st Lt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

**Marshall County**

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) Major, A.U.S.  
 Meyer, M. G., Marshalltown (Ft. Geo. Meade, Md.) Major, A.U.S.  
 Noonan, J. J., Marshalltown (APO 928, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (APO 520, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (APO 520, New York, N. Y.) ..... Major, A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (APO 937, Seattle Wash.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Mills County**

DeYoung, W. A., Glenwood (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
 Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 230, New York, N. Y.) ..... Capt., A.U.S.

**Mitchell County**

Culbertson, R. A., St. Ansgar (Camp Campbell, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.  
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

**Monona County**

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... Capt., A.U.S.  
 Anderson, S. N., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 928, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gaukel, L. A., Onawa (Fort Riley, Kan.) ..... Capt., A.U.S.  
 †Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Lewis, Wash.) ..... Major, A.U.S.  
 Wainwright, M. T., Mapleton (Ft. Leonard Wood, Mo.) ..... Capt., A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

**Monroe County**

Gilliland, C. H., Albia (Quonset Point, R. I.) ..... Lt., U.S.N.R.  
 Heimann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Major, A.U.S.  
 Smith, R. A., Albia (New Cumberland, Pa.) ..... Capt., A.U.S.

**Montgomery County**

Bastron, H. C., Red Oak (APO 964, San Francisco, Cal.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (APO 948, Seattle, Wash.) Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

**Muscatine County**

Ady, A. E., West Liberty (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Capt., A.U.S.  
 Lindley, E. L., Muscatine (APO Los Angeles, Cal.) Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO, Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) ..... Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Lt. Col., A.U.S.

**O'Brien County**

Getty, E. B., Primghar (APO 117, New York, N. Y.) ..... Capt., A.U.S.  
 Hayne, W. W., Paullina (APO 638, New York, N. Y.) ..... Capt., A.U.S.  
 Moen, S. T., Hartley (APO 689, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

**Osceola County**

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

**Page County**

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Bossingham, E. N., Clarinda (Fort Ord, Cal.) ..... Major, A.U.S.  
 Bunch, H. McK., Shenandoah (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Burdick, F. D., Shenandoah (APO, New York, N. Y.) ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (Denver, Colo.) ..... Major, A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) ..... Capt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

**Palo Alto County**

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Plymouth County**

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Denver, Colo.) ..... 1st Lt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... Capt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

**Pocahontas County**

Blair, F. L., Jr., Fonda (San Antonio, Texas) ..... Lt., U.S.N.R.  
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.  
 Patterson, A. W., Fonda (Des Moines, Iowa) ..... Capt., A.U.S.

**Polk County**

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Major, A.U.S.  
 Bates, M. T., Des Moines (Corona, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Riverside, Cal.) ..... Major, A.U.S.  
 Brown, A. W., Des Moines (APO 5934, New York, N. Y.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (El Paso, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef-Offizierlager XXI B, Deutschland [Allemagne]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (APO 5541, New York, N. Y.) ..... Capt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
 Connell, J. R., Des Moines (Phoenixville, Pa.) ..... Major, A.U.S.  
 Corn, H. H., Des Moines (St. Louis, Mo.) ..... Capt., A.U.S.  
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) ..... Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) ..... 1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Ft. Snelling, Minn.) ..... 1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 628, New York, N. Y.) ..... Major, A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas) ..... Capt., A.U.S.  
 Ellis, H. G., Des Moines (APO 16242A, San Francisco, Cal.) ..... Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas) ..... Lt. Col., A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Fracasse, John, Des Moines ..... 1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines ..... Major, A.U.S.  
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) ..... Major, A.U.S.  
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.) ..... Capt., A.U.S.  
 Goldberg, Louie, Des Moines (APO 9764, San Francisco, Cal.) ..... Capt., A.U.S.

Gordon, A. M., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Gurau, H. H., Des Moines (Malden, Mo.) ..... Capt., A.U.S.  
 Haines, D. J., Des Moines (APO 708, San Francisco, Cal.) ..... Capt., A.U.S.  
 Harris, D. D., Des Moines (Gulfport, Miss.) ..... Lt. Comdr., U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.) ..... 1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 James, A. D., Des Moines (Fort Eustis, Va.) ..... Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Los Angeles, Cal.) ..... Capt., A.U.S.  
 Kelley, E. J., Des Moines (Columbus, Ohio) ..... Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.) ..... Lt. Col., A.U.S.  
 Kirch, W. A. W., Des Moines (Seattle, Wash.) ..... Lt. Comdr., U.S.N.R.  
 Klocksmy, H. L., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Kottke, E. E., Des Moines (Temple, Texas) ..... Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.) ..... 1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Lederman, James, Des Moines ..... Lt. Col., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.) ..... Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (APO 5444, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) ..... 1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.) ..... 1st Lt., A.U.S.  
 Matheson, J. H., Des Moines (San Leandro, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa) ..... Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.) ..... Major, A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines ..... 1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) ..... Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Morden, R. P., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Mumma, C. S., Des Moines (Los Angeles, Cal.) ..... Major, A.U.S.  
 Murphy, J. H., Des Moines (Barstow, Cal.) ..... Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.) ..... Major, A.U.S.  
 Noun, L. J., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Noun, M. H., Des Moines (APO 350, New York, N. Y.) ..... Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.) ..... 1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (APO 980, Seattle, Wash.) ..... Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.) ..... Capt., A.U.S.  
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.) ..... Capt., A.U.S.  
 Pfeiffer, E. P., Des Moines (APO 11043, San Francisco, Cal.) ..... Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corona, Cal.) ..... Lt., U.S.N.R.  
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Powell, L. D., Des Moines (Oceanside, Cal.) ..... Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.) ..... Major, A.U.S.  
 Priestley, J. B., Des Moines (Camp Crowder, Mo.) ..... Major, A.U.S.  
 Purdy, W. O., Des Moines (APO 5935, New York, N. Y.) ..... Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.) ..... Major, A.U.S.  
 Robinson, V. C., Des Moines (Tampa, Fla.) ..... Major, A.U.S.  
 Rotkow, M. J., Des Moines (Ft. Benj. Harrison, Ind.) ..... Capt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.  
 Shepherd, L. K., Des Moines (APO New York, N. Y.) ..... Major, A.U.S.  
 Shiffer, H. K., Des Moines (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.) ..... 1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (New Orleans, La.) ..... P. A. Surg., U.S.P.H.S.  
 Smead, H. H., Des Moines (APO 595, New York, N. Y.) ..... Capt., A.U.S.  
 Smith, H. J., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.) ..... Capt., A.U.S.  
 Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.) ..... Capt., A.U.S.



Snyder, G. E., Grimes (APO 709, San Francisco, Cal.).....Major, A.U.S.  
 Sohm, H. A., Des Moines (San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Sorensen, R. M., Des Moines (Topeka, Kan.).....Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.).....Lt. Comdr., U.S.N.R.  
 Stearns, A. B., Des Moines (Denver, Colo.).....Major, A.U.S.  
 Stickler, Robert, Des Moines (Fort Benning, Ga.).....Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.).....Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (APO 403, New York, N. Y.).....Major, A.U.S.  
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.).....Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas).....Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.).....1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (APO 515, New York, N. Y.).....Capt., A.U.S.  
 Vaubel, E. K., Des Moines (Washington, D. C.).....Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.).....1st Lt., A.U.S.  
 Willett, W. M., Des Moines (APO 507, New York, N. Y.).....Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.).....Capt., A.U.S.

#### Pottawattamie County

Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.).....Major, A.U.S.  
 Cogley, J. P., Council Bluffs (Springfield, Mo.).....Lt. Col., A.U.S.  
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.).....Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Pensacola, Fla.).....Lt. Comdr., U.S.N.R.  
 Floersch, E. B., Council Bluffs (Bremerton, Wash.).....Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Jensen, A. L., Council Bluffs (Temple, Texas).....Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.).....Lt., U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.).....Capt., A.U.S.  
 Lambert, E. M., Council Bluffs (APO 9907, New York, N. Y.).....Capt., A.U.S.  
 Maiden, S. D., Council Bluffs (Camp Hood, Texas).....Major, A.U.S.  
 Martin, L. R., Council Bluffs (Santa Barbara, Cal.).....Capt., A.U.S.  
 Mathiasen, H. W., Neola (Alexandria, La.).....Capt., A.U.S.  
 Moskovitz, J. M., Council Bluffs (APO 403, New York, N. Y.).....Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.).....Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (Springfield, Mo.).....Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.).....Capt., A.U.S.  
 Treynor, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (APO 230, New York, N. Y.).....Capt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.).....A.U.S.  
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.).....Major, A.U.S.

#### Poweshiek County

Brobyn, T. E., Grinnell (APO 726, Seattle, Wash.).....Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.).....1st Lt., A.U.S.  
 Korfmacher, E. S., Grinnell (San Francisco, Cal.).....Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco, Cal.).....Capt., A.U.S.  
 Parish, J. R., Grinnell (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Somers, P. E., Grinnell (St. Louis, Mo.).....1st Lt., A.U.S.

#### Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.).....Major, A.U.S.

#### Sac County

Bassett, G. H., Sac City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 1001, New York, N. Y.).....Capt., A.U.S.  
 Evans, W. L., Sac City (APO 9212, New York, N. Y.).....Capt., A.U.S.  
 Klockslem, R. G., Odebolt (San Diego, Cal.).....Lt., U.S.N.R.  
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.).....Lt. Col., A.U.S.

#### Scott County

Baker, R. W., Davenport (APO 511, New York, N. Y.).....Capt., A.U.S.  
 Balzer, W. J., Davenport (Vancouver, Wash.).....Capt., A.U.S.  
 Bishop, J. F., Davenport (APO 729, Seattle, Wash.).....Capt., A.U.S.  
 Block, L. A., Davenport (Cambridge, Ohio).....Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York, N. Y.).....Capt., A.U.S.  
 Boyer, U. S., Davenport (Rock Island, Ill.).....Lt. Col., A.U.S.  
 Brown, M. J., Davenport (Camp Grant, Ill.).....Major, A.U.S.  
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.  
 Christiansen, C. C., Dixon (APO 961, San Francisco, Cal.).....Capt., A.U.S.  
 Coleman, Tom, Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.  
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.).....Capt., A.U.S.

Decker, C. E., Davenport (APO 321, San Francisco, Cal.).....Major, A.U.S.  
 Evans, H. J., Davenport (APO 9826, New York, N. Y.).....Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.).....Major, A.U.S.  
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.).....Capt., A.U.S.  
 Harevitz, H. M., Davenport (APO 370, New York, N. Y.).....Major, A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.).....Capt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Barkley, Texas).....Major, A.U.S.  
 Kimberly, L. W., Davenport (Hines, Ill.).....Capt., A.U.S.  
 Krakauer, Max, Davenport (Camp Ellis, Ill.).....Capt., A.U.S.  
 Kuhl, A. B., Jr., Davenport (El Paso, Texas).....1st Lt., A.U.S.  
 LaDage, L. H., Davenport (APO 229, New York, N. Y.).....Major, A.U.S.  
 Lorfeld, G. W., Davenport (Columbus, Ohio).....Capt., A.U.S.  
 Marker, J. I., Davenport (Camp Berkeley, Texas).....Col., M.R.C.  
 McMeans, T. W., Davenport (APO 557, New York, N. Y.).....Capt., A.U.S.  
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.).....Capt., A.U.S.  
 Perkins, R. M., Davenport (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.).....Capt., A.U.S.  
 Shorey, J. R., Davenport (APO 647, New York, N. Y.).....Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 230, New York, N. Y.).....Capt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.).....Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (APO 322, San Francisco, Cal.).....Capt., A.U.S.  
 Weinberg, H. B., Davenport (APO 5587, San Francisco, Cal.).....Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.).....Capt., A.U.S.

#### Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho).....Lt. Comdr. U.S.N.R.  
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.).....Capt., A.U.S.  
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

#### Sioux County

Gleysteen, R. R., Alton (Silver Spring, Md.).....Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (APO 572, New York, N. Y.).....Capt., A.U.S.  
 Larson, M. O., Hawarden (Camp Bowie, Texas).....Major, A.U.S.  
 Oelrich, A. M., Hull (APO New York, N. Y.).....1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.).....1st Lt., A.U.S.

#### Story County

Conner, J. D., Nevada (APO 708, San Francisco, Cal.).....Capt., A.U.S.  
 Fellows, J. G., Ames (Camp Breckenridge, Ky.).....Major, A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.).....Lt., U.S.N.R.  
 McFarland, J. E., Ames (Seattle, Wash.).....Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (APO 433, New York, N. Y.).....Major, A.U.S.  
 Sperow, W. B., Nevada (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamagordo, N. Mex.).....Major, A.U.S.  
 Wall, David, Ames (Ft. Dix, N. J.).....1st Lt., A.U.S.

#### Tama County

Bezmann, H. S., Traer (APO 9875, New York, N. Y.).....Capt., A.U.S.  
 Boller, G. C., Traer (Camp Carson, Colo.).....Capt., A.U.S.  
 Dobias, S. G., Chelsea (San Francisco, Cal.).....Capt., A.U.S.  
 Havlik, A. J., Tama (San Diego, Cal.).....Lt., U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.).....Lt., U.S.N.R.  
 Standefer, J. M., Tama (Des Moines, Iowa).....Lt., U.S.N.R.

#### Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.).....1st Lt., A.U.S.

#### Union County

Beatty, H. G., Creston (New Orleans, La.).....1st Lt., A.U.S.  
 Paragas, M. R., Creston (APO 503, San Francisco, Cal.).....Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.).....Capt., A.U.S.

#### Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.).....1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO 366, New York, N. Y.).....Lt. Col., A.U.S.  
 Giffillan, C. D. N., Eldon (Battle Creek, Mich.).....Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.).....Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (Camp Butler, N. C.).....Capt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa.....Capt., A.U.S.  
 Prewitt, L. H., Ottumwa (Atlantic City, N. J.).....Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas).....Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.).....Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Wolfe, W. C., Ottumwa (Fleet PO, San Francisco, Cal.).....Lt. (jg) U.S.N.R.

#### Warren County

Fullgrabe, E. A., Indianola (San Diego, Cal.).....Lt., U.S.N.R.  
 Hoffman, G. R., Lacona (Camp San Louis Obispo, Cal.).....Capt., A.U.S.

Shaw, E. E., Indianola (APO 834, New Orleans, La.) ..... Capt., A.U.S.  
 Trueblood, C. A., Indianola (APO 871, New York, N. Y.) ..... Capt., A.U.S.

**Washington County**

Boice, C. L., Washington (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 Mast, T. M., Washington (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.) 1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Ware, S. C., Kalona (APO 15275, New York, N. Y.) ..... Capt., A.U.S.

**Wayne County**

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) ..... Capt., A.U.S.

**Webster County**

Baker, C. J., Fort Dodge (APO New York, N. Y.) ..... Capt., A.U.S.  
 Burch, E. S., Dayton (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Burleson, M. W., Fort Dodge (Pasadena, Cal.) ..... Capt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa) ..... Major, U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.) ..... Lt. Comdr., U.S.N.R.  
 Joyner, N. M., Fort Dodge (Brooklyn Field, Ala.) ..... Lt. Comdr., U.S.N.R.  
 Kluever, H. C., Fort Dodge (Pensacola, Fla.) ..... Lt. Comdr., U.S.N.R.  
 Larsen, H. T., Fort Dodge (Pensacola, Fla.) ..... Lt., U.S.N.R.  
 Shrader, J. C., Fort Dodge (Fort Jackson, S. Car.) ..... Major, A.U.S.  
 Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) ..... Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (Alamogordo, N. M.) ..... Capt., A.U.S.

**Winneshiak County**

Fritchen, A. F., Decorah (Mare Island, Cal.) ..... Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Howard, W. H., Decorah ..... Capt., A.U.S.  
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Cal.) ..... Lt. (jg), U.S.N.R.  
 Van Besien, G. J., Decorah (APO New York, N. Y.) ..... Capt., A.U.S.

**Woodbury County**

Bettler, P. L., Sioux City (APO 962, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Blackstone, M. A., Sioux City (Camp Stoneman, Cal.) ..... Capt., A.U.S.  
 Boe, Henry, Sioux City (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 †Cmeyla, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) ..... Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) ..... Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa) ..... 1st Lt., A.U.S.  
 Down, H. I., Sioux City (APO 758, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Elson, V. J., Danbury (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Frank, L. J., Sioux City (Vallejo, Cal.) ..... Comdr., U.S.N.R.  
 Graham, J. W., Sioux City (Pensacola, Fla.) ..... Lt. Comdr., U.S.N.R.  
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
 Harris, D. M., Sioux City (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Sioux City, Iowa) ..... Capt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.) ..... Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.) ..... Major, A.U.S.  
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) ..... Capt., A.U.S.  
 Knott, P. D., Sioux City (Camp Crowder, Mo.) ..... Capt., A.U.S.  
 Knott, R. C., Sioux City (Fort Bragg, N. C.) ..... Major, A.U.S.  
 Krigsten, W. M., Sioux City (Springfield, Mo.) ..... Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (APO 63, New York, N. Y.) ..... Major, A.U.S.  
 Martin, R. F., Sioux City (APO 652, New York, N. Y.) ..... Capt., A.U.S.  
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 McCuiston, H. M., Sioux City (APO 813, New York, N. Y.) ..... Capt., A.U.S.  
 Mugan, R. C., Sioux City (APO 210, New York, N. Y.) ..... Capt., A.U.S.  
 Osincup, P. W., Sioux City (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.) ..... Capt., A.U.S.  
 Reeder, J. E., Jr., Sioux City (APO 526, New York, N. Y.) ..... Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.) ..... Major, A.U.S.  
 Schwartz, J. W., Sioux City (APO 11108, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Camp Polk, La.) ..... Major, A.U.S.

**Worth County**

Westly, G. S., Manly (APO 4580, San Francisco, Cal.) ..... Major, A.U.S.

**Wright County**

Aagesen, C. A., Dows (APO 383, New York, N. Y.) ..... Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Spokane, Wash.) ..... Capt., A.U.S.  
 Gorrell, R. L., Clarion (Brooklyn, N. Y.) ..... P.A. Surg., U.S.P.H.S.  
 Leimbach, S. P., Belmond (Farragut Air Base, Idaho)  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.

(\*) Reported missing in action.

(†) Reported killed in action.

(‡) Reported prisoner of war.

## EXAMINATIONS FOR THE AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Saturday, February 3, 1945, at 2:00 p. m. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year. All applications must be in the office of the Secretary by November 15, 1944.

Candidates are now required to be out of medical school not less than eight years, and in that time they must have completed an approved one year internship and at least three years of approved special formal training, or its equivalent, in the seven years following the interne year. This Board's requirements for internships and special training are similar to those of the American Medical Association since the Board and the AMA are at present cooperating in a survey of acceptable institutions.

A number of changes in Board regulations and requirements were put into effect at the Board's last annual meeting, held in June, 1944. These were designed to aid civilians as well as candidates in the service. Among these is the waiver, temporarily, of the AMA requirement for men in the Army or Navy, especially for those who proceeded directly or almost so from hospital services into Army or Navy service, upon a statement of intention to join promptly upon return to civilian practice. At this meeting the Board decided also to accept a period of nine months as an academic year in satisfying the requirement for certain years of training. This is only for the duration and even men who are not eligible for military service but who are nevertheless in hospitals where the accelerated program is in effect have been allowed to submit to us this short-time period of training in lieu of previous requirements.

Beginning with this next written examination, the Board will limit the written examination to a maximum period of three hours and in submitting case records at this time, all obstetric reports which do not include measurements either by calipers and, as indicated, by acceptable x-ray pelvimetry, will be considered incomplete.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.



# WOMAN'S AUXILIARY NEWS

MRS. KEITH M. CHAPLER, *Chairman of Press and Publicity Committee*, Dexter, Iowa

*President*—MRS. JAY C. DECKER, Sioux City

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*Treasurer*—MRS. ARTHUR E. MERKEL, Des Moines

## REPORT ON ANNUAL MEETING OF WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

The Twenty-second Annual Session of the Woman's Auxiliary to the American Medical Association was called to order in the Towne Room of the Knickerbocker Hotel in Chicago, June 12, 1944, with Mrs. Eben J. Carey, Wauwatosa, Wisconsin, presiding. Lt. Viola Cawood Flowers, Woman's Army Corps, led the pledge of allegiance to the flag and Mrs. Frank N. Haggard, San Antonio, Texas, led the pledge of loyalty to the Woman's Auxiliary to the American Medical Association. Dr. Herman Bundesen, Chicago, extended greetings for the City of Chicago; Mrs. M. A. Nix, Chicago, gave the address of welcome; and Mrs. Asher Yaguda, past president of the Woman's Auxiliary to the New Jersey Medical Society, responded.

At the luncheon Tuesday noon in honor of our president, Mrs. Eben J. Carey, the guest speaker was Vice Admiral Ross T. McIntire, Surgeon General of the United States Navy, who spoke on "Women and the War."

The Woman's Auxiliary to the Chicago Medical Society was hostess at a tea 5:00 p. m. Tuesday in the ballroom of Hotel Knickerbocker honoring Mrs. Eben J. Carey, president, and Mrs. David W. Thomas, president-elect, and members of the National Board of Directors and state delegates.

Many Auxiliary members accompanied their husbands to the opening meeting of the House of Delegates of the American Medical Association in the grand ballroom of the Palmer House Tuesday evening. Dr. James E. Paullin, president of the American Medical Association, presided, and Dr. Herman L. Kretschmer of Chicago was installed as president.

Wednesday noon at the annual luncheon honoring the past presidents of the Woman's Auxiliary to the American Medical Association, Dr. Herman L. Kretschmer, president-elect, Dr. James E. Paullin, president, and Dr. Morris Fishbein were our guests of honor. In memory of Mrs. Herman L. Kretschmer, who was an enthusiastic Auxiliary member, Dr. Kretschmer presented Mrs. Carey with a substantial sum of money to purchase a plaque. This is to be kept in the Central Office of the Woman's Auxiliary and will bear the names of winners in the annual *Hygeia* contest.

There were 520 members registered at the meeting, 163 voting delegates and 22 states represented.

The highlight of the convention: Upon advice of our Advisory Council and after a careful review, the new constitution was voted upon and accepted.

Wednesday evening we enjoyed a tour of exhibits in the Museum of Science and Industry and a buffet supper. Dr. Andrew Ivy, professor of physiology, Northwestern University Medical School, gave an interesting lecture on "Aviation Calls the Doctor."

One of the finest art shows the American Physicians Art Association has ever held was on display in the gallery of the grand ballroom of the Stevens Hotel. Over five hundred physicians from all over the country submitted over a thousand pieces. This was sponsored by Mead Johnson & Company.

Mrs. David W. Thomas, Lockhaven, Pennsylvania, was elected president and Mrs. Jessie D. Hamer, Phoenix, Arizona, was named president-elect.

The delegates from Iowa were Mrs. W. S. Reiley, Red Oak; Mrs. S. S. Westly, Manly, president-elect; Mrs. E. T. Warren, Stuart; and Mrs. E. D. Miller, Wellman.

Mrs. Roy M. Hutchinson, Chicago, chairman, and her committee made our stay a pleasant one.

Mrs. F. W. Mulsow, Cedar Rapids

## OCCUPATIONAL THERAPY

Occupational therapy has an important place in the curative treatment of neuroses, psychoses, physical diseases, and injuries because it helps to relax tension, to develop an interest in outside affairs, and to stimulate self-confidence and thus build morale. In a more definitely physical way, it helps to improve muscular control after nerve injuries. It fills in the time between the termination of medical treatment and that patient's social and economic adjustment, and has become such an important factor that it is now used with other therapies as soon as the acute stages of disability are passed.

In 1917 the American Medical Association helped to organize the Occupational Therapy Association for the purpose of promoting its use in hospitals and institutions. At first the work was limited to needlecraft, weaving, basket making, woodwork and other simple tasks. Today it covers all arts and crafts and its activities are classified as recreational, manual, educational, and pro-vocational.

Many of the workers are women. To become an

occupational therapist necessitates the completion of an outlined curriculum approved by the American Medical Association.

The present war demand for trained personnel is so great that most occupational therapists in civilian hospitals have been recruited for Army and Navy work. As increasing numbers of injured soldiers return to base hospitals, more and more workers are needed to aid in their adjustment to normal life.

To help relieve this situation the Red Cross Arts and Skills Unit has instituted an extensive training program for volunteer artists, designers, and other craftsmen. After completing the course, these volunteer workers are assigned to hospitals where they work in close cooperation with doctors and nurses.

A twenty-three year old sergeant held a fox-hole at Guadalcanal and lost a leg in the action. While recovering in the hospital he became bitter and morose. One day he was encouraged to try a hand loom. When he found that he could weave, he started a rug for his mother. Now he is out of his funk, learning how to use his new leg and looking forward to the future. This illustrates the positive value of occupational therapy at work.

Mrs. R. C. Doolittle, Des Moines

#### BIBLIOGRAPHY

- Psychiatry for Nurses, Karnosh and Gage.  
 Psychiatric Nursing, Wm. S. Sadler and Others.  
 Hygeia, December, 1943.  
 School Arts, September, 1943.  
 Survey Graphic, March, 1944.  
 New York Times Magazine, January 2, 1944.

#### TAKE IT FROM ME

"It is a wonderful thing to save money for old age, in the form of life insurance or investments, but there is another intangible asset which it is even more important to save for the so-called years of retirement, and that is . . . the love of life. Without this, all the money in the world cannot make the later years truly rich.

"And the nice thing about this 'love of life' is that we need not hoard it in order to have it for future enjoyment . . . rather just the opposite. The power to enjoy life is cumulative and the earlier in life we start practicing it the more abundant are our joys as the years roll on.

"No one is more pathetic than a lonely old man or woman. We must save our friends and make new ones to share our fun now, and the future will take care of itself. We must do some constructive work that will endure. We must render some worthy service. We must make friends of good books and good music. We must so live, too, that we may hoard up a great store of beautiful memories. We must find joy in every day as we live it.

"Yes, it will take more than a check each month to make us happy and contented in our old age. We must be sure to live in such a way now that we may have on tap within ourselves all those things which make for true wealth."

—GENORE BERNHARD in  
*The Right Hand*, May, 1944.

#### THE SEARCHLIGHT

What kind of an Auxiliary member are you?

Do you subscribe for and read *Hygeia*?

Do you recommend *Hygeia* to others and see that it has a place on the reading tables of public institutions?

Do you subscribe for and read *The Bulletin*?

Are you keeping yourself well informed on developments in regard to the Wagner-Murray-Dingell Bill?

Do you see that your Press and Publicity Chairman has items covering your county meetings or other material which would be of interest to Auxiliary members?

Would you like every Auxiliary member to take the same kind of interest in Auxiliary work that you do?

Mrs. K. M. Chapler

#### Dallas-Guthrie Auxiliary

The Dallas-Guthrie Auxiliary met in Woodward, Thursday noon, July 20. Following the luncheon, the business meeting was called to order by the president, Mrs. C. E. Porter, in the home of Dr. and Mrs. H. W. Smith. After a brief business meeting, Mrs. H. W. Smith presented a splendid report of the state convention. The members enjoyed a social hour and were much interested in Mrs. Smith's handsome collection of antique glass.

#### SPEAKERS BUREAU RADIO SCHEDULE

WOI—Wednesdays at 1:00 p. m.

WSUI—Thursdays at 9:00 a. m.

- |               |  |                          |
|---------------|--|--------------------------|
| October 4- 5  | Poliomyelitis                              | J. Fred Gerken, M.D.     |
| October 11-12 | The Common Cold                            | Thomas J. Egan, M.D.     |
| October 18-19 | Rheumatic Fever                            | Thomas L. Ward, M.D.     |
| October 25-26 | Dangers in the Indiscriminate Use of Drugs | J. Donald Anderson, M.D. |

#### SULFADIAZINE IN THE PREVENTION OF RESPIRATORY TRACT BACTERIAL INFECTIONS

(Continued from page 440)

once cause the average physician to wonder about its applicability to his private practice. Any such attempts, of course, should be carried out under extremely careful conditions, but the inherent possibilities in carrying one's patients through the dangers from respiratory tract infections during the winter season make this a most hopeful possibility. Also, its possibilities in the control of infections in schools and other institutions where children come together in large numbers daily are something that deserve most careful consideration.



## SOCIETY PROCEEDINGS

### Black Hawk County

A meeting of the Black Hawk County Medical Society was held at Black's Tea Room in Waterloo Tuesday, September 19, at 7:00 p.m. The guest speaker of the evening was John R. Schenken, M.D., Professor of Pathology and Bacteriology at the Louisiana State University School of Medicine in New Orleans, who discussed The Carcinogenic and Carcinostatic Action of Estrogenic Substances. The presentation was followed by a clinicopathologic conference.

S. A. Barrett, M.D., Secretary

### Hardin County

The September meeting of the Hardin County Medical Society was held at the Princess Cafe in Iowa Falls Tuesday evening, September 26. Following dinner Rubin H. Flocks, M.D., Associate Professor of Urology at the State University of Iowa College of Medicine, presented a lecture on Some Common Urological Lesions and Their Treatment.

W. E. Marsh, M.D., Secretary

### Marion County

The Marion County Medical Society held a dinner meeting at the Masonic Temple in Knoxville Wednesday evening, September 13. The scientific program consisted of an interesting paper on Anterior Poliomyelitis by James E. Dyson, M.D., of Des Moines; an enlightening and worthwhile discussion of Penicillin by Andrew C. Woofter, M.D., of the Iowa State Department of Health; and a short clinic. A brief program of entertainment was also presented. Following this a most interesting letter was read from Dr. J. Robert Wright, a member of the Society who is now located in Las Vegas, New Mexico, where he is associated with the State Board of Health of New Mexico. Seventeen doctors were present at the meeting.

E. C. McClure, M.D., Secretary

### Polk County

The regular meeting of the Polk County Medical Society was held in conjunction with the Iowa Lutheran Hospital Staff meeting Tuesday, September 12, at 6:30 p.m. at Iowa Lutheran Hospital. The guest speaker of the evening was Alfred W. Adson, M.D., Professor of Neurosurgery at the University of Minnesota Graduate School, who spoke on The Surgical Management of Cerebral Aneurysms, with special reference to pulsating exophthalmos.

### Pottawattamie County

Members of the Pottawattamie County Medical Society held their regular monthly dinner meeting at the Chieftain Hotel in Council Bluffs Tuesday, September 12, at 6:30 p.m. Guest speakers of the evening were Louis B. Moon, M.D., and Julius B. Christensen, M.D., of Omaha, who discussed office problems in proctology as encountered by the general practitioner. Case histories and slides were presented in connection with the discussion.

### Scott County

The September meeting of the Scott County Medical Society was held Tuesday evening, September 5, at 6:00 o'clock at the Lend-A-Hand Club in Davenport. Following dinner Adolph L. Sahs, M.D., of the Department of Neurology at the State University of Iowa College of Medicine, spoke on Causes of Unconsciousness.

L. J. Miltner, M.D., Secretary

### Wapello County

The Wapello County Medical Society opened its fall series of meetings in Ottumwa, Tuesday, September 5, with a dinner meeting at 6:30 p.m. at the Ottumwa Hotel. Horace M. Korns, M.D., of the State University of Iowa College of Medicine, spoke on The Treatment of Coronary Occlusion. The second meeting of the month was held Tuesday evening, September 19, at which William C. Newell, M.D., of Ottumwa presented a paper on Cervix of Yesterday and Today.

The first meeting in October will be held Tuesday evening, October 3. Siegmund F. Singer, M.D., of Ottumwa will present and discuss a film on Radium Treatment of Carcinoma of the Cervix. Tuesday evening, October 17, is the date of the second meeting of the month. Glenn C. Blome, M.D., of Ottumwa will be the speaker of the evening and will talk on Injuries About the Shoulder Joint.

L. A. Taylor, M.D., Secretary

### Woodbury County

The September meeting of the Woodbury County Medical Society was held Thursday, September 21, at 6:30 p.m. in the Corn Room of the Martin Hotel in Sioux City. The guest speaker of the evening was Bruce Brown, M.D., Acting Medical Director of the Industrial Hygiene Section of the Iowa State Department of Health, who discussed Newer Aspects of Industrial Medicine and its Relation to the General Practitioner.

F. D. McCarthy, M.D., Secretary

## PERSONAL MENTION

Dr. Elmer E. Kottke, who has served during the past two years as a Captain in the Medical Corps of the Army of the United States, has recently returned to Des Moines after having been placed on an inactive basis. Dr. Kottke and his family plan to reside in Santa Monica, California, for the winter.

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Dr. Craig D. Ellyson, who recently received a medical discharge from the air service of the United States Naval Reserve for injuries received in amphibious service at Camp Bradford in 1943, has returned to Waterloo where he will resume practice with his father, Dr. Charles W. Ellyson. Dr. Ellyson, a Lieutenant in the United States Naval Reserve, entered service on October 19, 1942, and received his wings as Flight Surgeon in January of this year. He was recently stationed at the United States Naval Station and Repair Base in New Orleans, with duty in the Caribbean area.

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Dr. Herbert W. Anderson, who has been located in Onawa for the past two years, has moved to Madera, California, where he will be associated with the Madera County Hospital.

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Dr. Philip I. Crew has been granted an honorable discharge from the United States Army Air Forces and has returned to Marion to resume the practice of medicine with his father, Dr. Arthur E. Crew. Dr. Crew entered service in October, 1942, at which time he was commissioned a Captain in the Medical Corps.

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Dr. Ardo M. Hess, who recently received a medical discharge from the Medical Corps of the Army of the United States, has resumed the practice of medicine in West Union where he was located prior to entering military service. Dr. Hess served as a Captain in the Medical Corps.

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Dr. Karl R. Luthy has recently become Medical Director of the United States Rubber Company plant located in Mishawaka, Indiana. During the past year he has been with the Atlas Powder Company of Paducah, Kentucky, prior to which he was located in Oskaloosa.

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Dr. Clyde M. Longstreth of Atlantic has been advised by the Naval Retirement Board that he has been placed on the retirement list as of August 1 with a full commission as Lieutenant Commander. He plans to resume practice in the near future. Prior to volunteering for active duty in July 1942, Dr. Longstreth had served ten years with the Naval Medical Corps.

Dr. Howard R. Hess, who has practiced for many years in Cedar Rapids, has announced his plans to retire from active practice and to go to St. Petersburg, Florida, where he will make his future home.

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Dr. Harry P. Moen, who resumed his practice in West Union after receiving a medical discharge from the Army early this year, has now given up his practice because of ill health and has entered an Army hospital for convalescence.

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Dr. Valiant D. French of Carson has given up his practice there and at present is residing in Glendale, California. Dr. French was forced to relinquish his practice because of ill health.

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Avery E. Lambert, Ph. D., of the Anatomy Department of the State University of Iowa College of Medicine, has retired from full-time teaching activities in the University. Dr. Lambert, who has been a member of the faculty since 1925, reached the age of retirement from full-time duties but will continue some of his work on a part-time basis.

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Dr. Frederick W. Mulsow of Cedar Rapids was the guest speaker of the Marion Lions Club Tuesday evening, September 5. Dr. Mulsow discussed recent advances in medicine.

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## DEATH NOTICES

Bond, Wilbert White, of Des Moines, aged forty-six, died suddenly September 21 of a heart attack. He was graduated in 1923 from the State University of Iowa College of Medicine, and at the time of his death was a member of the Polk County and Iowa State Medical Societies.

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Phillips, Norman W., of Clear Lake, aged eighty-five, died September 10 following a brief illness. Dr. Phillips was graduated in 1887 from the State University of Iowa College of Medicine, and at the time of his death was a life member of the Cerro Gordo County and Iowa State Medical Societies.

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"COURAGE AND DEVOTION BEYOND THE  
CALL OF DUTY"

Through the cooperation of Mead Johnson & Company, \$40,000 in War Bonds are being offered to physician-artists (both in civilian and military service) for art works best illustrating the above title.

This contest is open to members of the American Physicians Art Association. For full details, write Dr. F. H. Redewill, Secretary, Flood Building, San Francisco, California.



# HISTORY OF MEDICINE IN IOWA

*Edited by the Historical Committee*

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary*

DR. JOHN T. MCCLINTOCK, Iowa City

DR. MURDOCH BANNISTER, Ottumwa

DR. FRANK E. SAMPSON, Creston

## Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

### Part I

#### GENERAL STREET AND AGENCY HOUSE

As soon as the Indians were mobilized, General Joseph M. Street was transferred to the new location. He was a man well versed in Indian affairs, having come from the Winnebago Agency at Prairie du Chein, Wisconsin, where, for a number of years, he had conducted the Government's business with the Indians with marked success. The Sac and Fox Indians also knew him well and loved and trusted him. The site chosen for this military outpost was a few miles east of Ot-tum-wa-noc, long since known as Agency, or Agency City. A barrack was first built, then a comfortable home for himself and family, known as the Agency House; and such additional buildings as the soldiers of the garrison required, including stables and a blacksmith shop. Work which was begun on these buildings in 1838 by a large force of mechanics, laborers, and negro slaves from Missouri, was soon completed.

General Street established his family in the Agency House in April, 1839. His health failed, however, and on May 5, 1840, after a riding trip in company with Dr. Posey of Shawneetown, Illinois, his physician and brother-in-law, he died suddenly while sitting in a chair at his home.

#### WAPELLO COUNTY FORMATION

While Dr. Posey was practicing medicine at the U. S. Indian Agency a few miles west of the western boundary of the territory of Iowa, Dr. John Jackman Smith, with his "mad stone" and lancet, was busily engaged in practicing the art of medicine, as he knew it, in a sparsely settled country and preparing his 5,000 acres of land for cultivation. As one of the commissioners, he helped to organize the independent county of Jefferson in March, 1839, of which Wapello County became a judicial part on May 1, 1843, and so remained until March 1, 1844, when, by authority of an act

passed by the Council and House of Representatives of the Territory of Iowa and approved by the governor, it became the independent county of Wapello.

The impulse that gave birth to Wapello County was not spontaneous. The "Old Purchase" of 1833 was filling rapidly. The two original counties, Dubuque and Des Moines, separated by a line drawn westward from the foot of Rock Island, were being divided, and subdivided into numerous smaller counties filled with immigration from eastern and southern states, and overcrowded Europe. A "new purchase" was anticipated. The rumor spread, and the lines of immigration lengthened, converging in greatest numbers on the territory which lay between Henry County and the western boundary line of the "Old Purchase." In 1837 its population numbered but 110. In 1839 the Territorial government authorized the establishment of its boundary lines and the county of Jefferson came into being. And on they came, in ever increasing numbers—the homebuilder, the man seeking adventure in business, the tradesman, the carpenter, the millwright, lawyers, doctors, clergymen, honest folk by far and large. Yet, there was then, and there always will be, a few black sheep to browse among the common herd. How they were segregated and their crime summarily dealt with is set forth, first, in a prepared address delivered before the Old Settlers' Association of Wapello County, in 1874, by H. B. Hendershott of Ottumwa. In this historic document, Judge Hendershott relates the story of a "Squatter," a "Claim Committee," and the "Dahlonga War" that followed, in which one man was killed. And second, the celebrated painting, by John Mulvaney of Eldon, "The Trial of a Horse Thief in a Western Justices Court"—a vivid portrait stressing the fact that crime, even in those days, did not pay.

The "New Purchase" treaty was consummated on October 11, 1842. By the terms of this treaty, the Indians were given until March 1, 1843, to begin moving out. When this became known, a flood of immigrants headed for the boundary line, converging for the most part on Jefferson County to await the opening day.

#### WAPELLO COUNTY LAND STAMPEDE

Although a few small tracts of land had been authorized for occupation by U. S. government employees and licensed Indian traders, the soldiers stationed at the Agency garrison had kept the territory open, destroying crops and cabins alike of all "squatters" as soon as apprehended. This policy was strictly adhered to by the government until the last moment under the old treaty had expired. In spite of this, however, a few had trespassed beyond the boundary line to mark claims of their choice, which they hoped to acquire legally when the day of occupancy arrived. Some had driven stakes in the prairie, some had blazed trees along the streams, but all were forced to scurry back of the border to await the opening day. A vivid description of this is recorded in a "History of Wapello County," published anonymously by The Western Historical Company of Chicago in 1878, from which account the following paragraph is quoted:

"The night of April 30, 1843, was illumed with camp-fires along the boundary, and sleep foresook the eyelids of the progressive hosts. When the midnight hour arrived and the morning of May 1st was ushered in, the groves and hills rang with shouts and the sharp reports of fire-arms. A mighty army of fully two thousand persons pressed onward along the entire line. . . . So excited was the crowd that those who came did not realize who were their companions, and never knew whether they were first or last in the disordered scramble for place. . . . We settle the vexed question of priority by declaring that the first white man to settle in Wapello County was a crowd of people."

That was how Wapello County came into being, unlike any other county of the state—one day an uninhabited wilderness, the next a stirring community of more than 2,000 souls!

Immediate plans were undertaken to establish the jurisdictional independence of the new county; and, on February 13, 1844, the Territorial Legislature passed an act declaring "That the county of Wapello be and the same is hereby organized from and after the First day of March, 1844," just ten months after the first settlers had arrived.

#### Part II

#### THE PRACTICE OF MEDICINE IN WAPELLO COUNTY DURING THE FIRST DECADE

(1843-1853)

That physicians played a prominent part in the settlement of Iowa is evidenced by recorded history. Many of these men were without degrees. In fact, many of them had very little education of any sort. The success of such men depended largely on a tacit understanding of human relations, human sympathy, and self-sacrifice in all matters of physical distress.

Physician—surgeon—dentist—nurse—all-in-one on a galloping steed with bulging saddle-bags; a candle in the cabin window; an anxious face at the door; "Hurry, Doc—Oh, hurry—*please!* Is it too late?"

A tense moment of suspense. He looks at the tongue. He feels of the pulse. He consults his massive gold watch. "Ah—hah!" he whispers softly to the anxious face. "I'm just in time—another moment would have been too late."

And so the beginning of the Old Family Doctor who, for all his shortcomings, did much for good with his lancet, his enemas, and his poultices. His favorite remedy for coughs and colds was wild cherry bark, syrup, and whiskey—basically not harmful. His "blood medicine" was a decoction of native herbs, roots, or barks, the potent factor of which was a secret known only to himself and the Indians. And, since the Indians were acclimated or immune to some of the diseases that attacked the early settlers, Indian remedies soon became very popular; so popular, in fact, that within a few years a thriving racket swept the country from west to east. After nearly a half century of it, the self-styled "Indian Doctor," with his extravagant claims, was abated by law; but his credulous followers lived on. Even to this day they live in goodly numbers in every community, as was evidenced by the adventure of the half-breed "Indian doctor" who flourished for a short time in Wapello and Keokuk counties only a decade ago.

It must not be inferred from the foregoing remarks that a prevailing number of pioneer physicians were uneducated. Many of them were graduates of not only medical schools but literary colleges as well. Others obtained medical degrees after years of progressive study and practice. Some operated farms, some engaged in business, and many were leaders in religious, educational, political, and social activities in their communities.

Regardless of qualifications, however, the practice of medicine and surgery in Wapello County one hundred years ago was a complex, laborious,



and difficult service to perform. There were no instruments of precision. There were no dependable roads. Very few bridges spanned the streams. Trained physicians, frequently called from one settlement to another, often traveled from twenty-five to fifty miles through boundless tracts of wilderness. The prevailing diseases these pioneer doctors were called to treat were intermittent fevers, malarial infections, pulmonary diseases, dysentery, and "inflammation of the bowels." There were also occasional epidemics of measles, scarlet fever, and erysipelas. In 1847, three years after the settlement of Wapello County, there occurred a very severe and fatal epidemic of erysipelas and puerperal fever.

To combat these various ailments, the physicians of that early date were well supplied with a formidable group of potent remedies. A druggist's advertisement appearing in the first issue of the first paper published in Wapello County, August 8, 1848, bears ample testimony to this fact. The druggist's name was F. W. Taylor; and he invited physicians to call and examine his "stock of calomel, blue mass, ipecac, opium, quinine, iodine, morphine, and camphor." In spite of the iodine, however, many of the early settlers staked their pile on the efficacy of the fresh "cow-poultice" in the treatment of stone-bruises and punctured and infected wounds of the extremities. Strangely enough, not much appears in the records of those times concerning either tetanus or blood poisoning.

Some of the adjuncts highly significant in the treatment of the sick in the early medical days of Wapello County, were bloodletting, friction, fumigation with sulfurous acid, clysters (or glysters), and the issues. The execution of some of these measures is very interesting to note, bloodletting, for example: For general purposes, a vein either in the bend of the elbow or on top of the foot was opened with the lancet, the operator first applying a tourniquet one or two inches above the elbow, or the ankle. As soon as the vein was well filled, the thumb of the left hand was pressed firmly against it about an inch below the point to be opened. Then the lancet, held firmly in the right hand, was drawn obliquely, or slantingly, across the vein. An experienced operator never raised the handle of the lancet lest the point penetrate so deep as to sever the vein completely, cut an underlying artery, or damage a nerve. A trained physician was not always available when the mood for bloodletting prevailed. Hence, according to Gunn's *Domestic Medicine*, the eighth edition of which was published in 1836, and from which I quote, the public is charged as follows:

"Every person should not only know how to open a vein with a lancet, but should also be acquainted with the cautions that are necessary to be known for avoiding danger; because many cases may, and do occur, where medical assistance cannot be had in time, and where actual loss of life occurs for want of bleeding."

Thus, the simple operation of bloodletting with the lancet, when executed by an unskilled operator, could, and frequently did, result in accidents that led to delicate operations in those days of painful surgery.

Topical bleeding for local inflammations was also very popular with the medical profession one hundred years ago. This operation was accomplished by applying either leeches or hot cups over the affected part. Scarification was the first step in either procedure. If leeches were to be used, they were first dried by allowing them to crawl over a dry cloth. Then the scarified section was lightly smeared with sweet cream or sugar, and the leeches set upon it. If they were in a restive mood and insisted on crawling about instead of attaching themselves to the bloody margins of the wound, they were restricted to their proper places by means of a wine glass. As to cupping, the technic was much more simple, but far less impressive to the younger members of the family involved.

(To be continued next month)

#### POSTGRADUATE ASSEMBLY OF INSTITUTE OF MEDICINE OF CHICAGO

A Postgraduate Assembly on Nervous and Mental Diseases, and War will be held on Wednesday and Thursday, November 1 and 2, 1944, in the Palmer House, Chicago, and will be devoted to phases of neurology, psychiatry, and neurosurgery that are of particular importance at this time to clinicians, specialists, and lay workers in the fields mentioned. Interested physicians and workers in Chicago and the Midwest are invited to attend. There will be a registration fee of \$5.00 for nonmembers of the Institute of Medicine, except for those in uniform.

The Assembly will present a carefully integrated program which will include five addresses on each of the two mornings and one afternoon; panel discussions on the afternoon of the second day; a "Neuropsychiatric Information Please" program on the first evening; and the 17th Pasteur Lecture of the Institute of Medicine of Chicago on the second evening by Dr. Edward A. Strecker, President of the American Psychiatric Association.

Complete programs and registration cards can be obtained by addressing The Institute of Medicine of Chicago, 86 East Randolph Street, Chicago 1, Illinois.

# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**THE TREATMENT OF PEPTIC ULCER**, Based Upon Ten Years' Experience at the New York Hospital—By George J. Heuer, M.D., professor of surgery, Cornell University Medical College and Surgeon-in-Chief of the New York Hospital. Assisted by Cranston Holman, M.D., assistant professor of clinical surgery, Cornell University Medical College, and William A. Cooper, assistant professor of Clinical Surgery, Cornell University Medical College. J. B. Lippincott Company, Philadelphia, 1944. Price, \$3.00.

**THE MANAGEMENT OF NEUROSYPHILIS**—By Bernhard Dattner, M.D., associate clinical professor of neurology, New York University Medical College. With collaboration of Evan W. Thomas, M.D., assistant professor of medicine and assistant professor of dermatology and syphilology, New York University Medical College; and Gertrude Wexler, M.D., instructor in dermatology and syphilology, New York University Medical College. Grune & Stratton, New York, 1944. Price, \$5.50.

**SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES**—By George R. Hermann, M.D., professor of medicine, University of Texas, director of the cardiovascular service, John Sealy Hospital, consultant in vascular diseases, U. S. Marine Hospital. Third edition. The C. V. Mosby Company, St. Louis, 1944. Price, \$5.00.

**HANDBOOK OF NUTRITION**, A Symposium prepared under the auspices of the Council on Foods and Nutrition of the American Medical Association. American Medical Association, Chicago, 1943. Price, \$2.50.

**TEXTBOOK OF GYNECOLOGY**—By Emil Novak, M.D., associate in gynecology, The Johns Hopkins Medical School; gynecologist, Bon Secours and St. Agnes Hospitals, Baltimore. Second edition. The Williams and Wilkins Company, 1944. Price, \$8.00.

**RADIATION AND CLIMATIC THERAPY OF CHRONIC PULMONARY DISEASES**, With Special Reference to Natural and Artificial Heliotherapy, X-ray Therapy, and Climatic Therapy of Chronic Pulmonary Diseases and All Forms of Tuberculosis—Edited by Edgar Mayer, M.D., assistant professor of clinical medicine, Cornell University Medical College, New York City; attending physician New York and Memorial Hospitals; special pulmonary consultant, New York State Department of Labor. The Williams & Wilkins Company, Baltimore, 1944. Price, \$5.00.

**ALLERGY IN PRACTICE**—By Samuel M. Feinberg, M.D., associate professor of medicine and chief of the division of allergy, Northwestern University Medical School; president, American Association for the Study of Allergy, 1942-1943; with the collaboration of Oren C. Durham, chief botanist, Abbott Laboratories. The Year Book Publishers, Inc., Chicago, 1944. Price, \$8.00.

**FEMALE ENDOCRINOLOGY**—By Jacob Hoffman, M.D., demonstrator in gynecology, Jefferson Medical College; pathologist in gynecology, Jefferson Hospital; formerly research fellow in endocrinology and director of the Endocrine Clinic, Gynecological Department, Jefferson Hospital, Philadelphia. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

## BOOK REVIEWS

### MINOR SURGERY

Edited by Humphry Rolleston and Alan Moncrieff. Philosophical Library, Inc., New York, 1944. Price, \$5.00.

Surgeons and medical men of all types in England have been at times almost overwhelmed by the number of accidents and minor surgical cases which they must attend. Their work during the present war has done much toward the development of simple methods and procedures.

This volume of one hundred fifty-five pages is made up of eighteen chapters, each written by an eminent medical authority. It deals with minor wounds, sprains and infections, benign tumors and cysts, minor surgery of the rectum and genito-urinary tract. It has chapters giving special attention to varicose veins, ulcers and phlebitis, the hands, feet, ears, nose, throat, and the eye. Anesthesia for minor surgery is discussed in the final chapter. Illustrations are few, but sufficient.

This book is written in a brief and concise manner carrying a world of information in a small space. There are no lengthy discussions of the pros and cons of various methods of treatment; the author merely outlines a method of treatment which he believes from his own experience to be the simplest and most satisfactory. This is not what one would call a good reference book, since it does not completely cover the field of minor surgery and it depends upon the reader's knowledge of surgical diagnosis, pathology, and basic principles of surgery. Rather, it is a "re-

fresher" book, which conveys to the reader the newer, proved, minor surgical methods as practiced in Britain. Like most books of its type written by our English colleagues, it reads well and is certainly worth while.

A. W. S.

### THE 1943 YEAR BOOK OF PHYSICAL THERAPY

Edited by Richard Kovács, M.D., professor of physical therapy, New York Polyclinic Medical School and Hospital; attending physical therapist, Manhattan State, Columbus and West Side Hospitals; visiting physical therapist, Department of Correction Hospitals of New York City and Harlem Valley State Hospital, Wingdale. The Year Book Publishers, Inc., Chicago, 1944. Price, \$3.00.

The author has abstracted well the important literature on the subject of physical therapy. The methods have been reviewed clearly and precisely.

The chapter on hypothermy or refrigerative anesthesia is well discussed. Its value in lowering the local metabolism makes it useful as an anesthesia preliminary to amputations and other surgery. It is, also, found to be of definite value in the preparation of veins for electro-coagulation. The chapter on ultra violet therapy considers the benefits as well as the harmful effects of this method. Its use as an



air sterilizer is also reviewed. The chapter on hydrotherapy reviews the literature completely.

The last of the book discusses various diseases and the types of physical therapy indicated in each of these and the benefits to be expected from their use.

This book is of value to the physician in general practice as well as to the one who limits himself to this particular field of medicine. L. M. O.

### ARTIFICIAL PNEUMOTHORAX IN PULMONARY TUBERCULOSIS

Including Its Relationship to the Broader  
Aspects of Collapse Therapy

By T. N. Rafferty, M.D., Phoenix, Arizona, formerly resident physician, William H. Maybury Sanatorium (Detroit Municipal Tuberculosis Sanatorium), Northville, Michigan. Introduction by Henry Stuart Willis, M.D., superintendent and medical director, William H. Maybury Sanatorium, Northville, Michigan. Grune & Stratton, New York, 1944. Price, \$4.00.

This is a short, practical, and timely book. It is well arranged and its contents are expressed in clear, forceful language. Its scope is not limited to the subject of pneumothorax, as its title implies, but covers essentially the entire field of collapse therapy and related subjects with special emphasis upon the relationship of pneumothorax to the other forms of collapse therapy. It constitutes an abbreviated, up-to-date textbook on the therapy of pulmonary tuberculosis.

Under the heading of pneumothorax, the author stresses the importance of establishing definite standards, or criteria, for the use of this form of collapse therapy and strongly advises against its indiscriminate use in unsuitable cases. The importance of intrapleural pneumonolysis in connection with pneumothorax is particularly emphasized in order to obtain a selective collapse when adhesions are present.

The chapter on tracheobronchial tuberculosis is especially valuable. It expresses the most modern concept of this relatively neglected condition with emphasis upon the importance of its recognition and degree of physiologic impairment present, particularly with respect to the selection of the most suitable form of therapy. The more frequent use of bronchoscopy as a diagnostic aid is advocated.

One chapter is devoted to discussion of the tension cavity. This baffling condition is discussed in an interesting manner from both a theoretic and practical point of view and contains much information of value for every physician who is confronted with this difficult problem. Many other subjects of value are covered in this volume in a manner which focuses attention upon the relationship of the different subjects to each other and upon the complexity of the tuberculosis problem as a whole.

From beginning to end this book is filled with

scientific facts and practical suggestions in a condensed form. No one who is interested in or actively engaged in the treatment of pulmonary tuberculosis can afford to be without a copy of it on his desk.

J. R.

### MEDICAL DIAGNOSIS

Edited by Roscoe L. Pullen, M.D., instructor in medicine, Tulane University of Louisiana School of Medicine; assistant clinical director, Charity Hospital of Louisiana at New Orleans. With a foreword by John H. Musser, M.D., professor of medicine, Tulane University of Louisiana School of Medicine; senior visiting physician, Charity Hospital of Louisiana at New Orleans. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

In these days of rapid medical progress, any book which covers a broad subject may lack in completeness if it represents the experience of a single author. Some such thought must have caused the changes which have evolved the present familiar texts of medicine or surgery with their editor and editorial-board type of articles. In *Medical Diagnosis* Pullen followed the latter plan and the effect is largely that of a text for diagnosis (not just physical diagnosis) written by specialists for the general practitioner. The editor had two concepts to develop: physical diagnosis must be complete and careful as always, but medical diagnosis rests on other things than physical examination and all information must be at hand and correlated to make a diagnosis. This nice balance is well achieved.

The various chapter headings found in older physical diagnosis texts, such as heart, neck, head, and so on, are retained but the chapter material is broader than is generally found; the discussions of technic are usually in terms of interpretation of disease. More than 600 photographs, outline drawings, diagrams, and occasional diagnostic summaries are given to illustrate technical methods. There are notable chapters which are unique and deserve special mention: A forty-five page section on the breasts, beautifully illustrated, which will stimulate any practitioner to better work in relation to these organs; included also are well rounded and complete chapters on various surgical diagnoses such as gynecology, urologic specialties, and orthopedics. Modern endocrine diagnosis is sanely and conservatively described and pictured and finally there are several chapters describing special types of examinations such as psychiatric diagnosis, coma, sterility, occupational injuries, and other similar problems. The reviewer has never found the material of these discussions other than in larger monographs such as would be found in a specialist's library.

It would seem that such a book as Pullen's text will fill a distinct gap in the physician's book shelves. It cannot be recommended too highly. R. N. L.

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### TOXEMIA OF LATE PREGNANCY\*

NORMAN F. MILLER, M.D.†  
Ann Arbor, Michigan

I accepted this assignment to discuss toxemia of late pregnancy with some reservation. This reluctance was not due to any lack of interest in the subject but specifically to a realization of my own meager understanding of this confusing problem. For almost a quarter century, I have stubbed my toes on toxemia patients as I crammed my brain with both theories and facts. Now, I find that time and experience have left me with a humble, but respectful point of view no longer seriously encumbered by half-baked truths and unproved remedies. I am tremendously interested but no longer excited by reports on therapeutic measures which have not yet been exposed to the test of time. If this sounds a bit gloomy, let me hasten to add that I am not discouraged but neither am I greatly impressed by the known facts regarding toxemia of late pregnancy.

In order to limit the scope of this discussion, let me say that by the term "toxemia of late pregnancy" I mean a single disease entity commonly characterized in its early stage by hypertension, albuminuria and edema, and in its later more severe phase by convulsions—a disease dependent on pregnancy.

The high death rate caused by this disease has long been a source of concern. As one of the three principal causes of maternal mortality, it is today our most important obstetric problem. While the task of reducing mortality from this source is partly a matter of lay education, it remains chiefly the undeniable responsibility of practicing physicians. As a practicing physician I am convinced that both maternal morbidity and mortality rates can be reduced by the adoption of a positive, unembellished, although perhaps somewhat uninspiring, practical plan of treatment. At the University

of Michigan Hospital the mortality rate for pre-eclampsia and eclampsia has been cut in half and the morbidity rate minimized by such a remedial program and by recognition of certain facts which perforce must shape treatment until such a time as the true cause of the disease becomes known. These facts which we cannot dodge are:

1. The etiology of toxemia of late pregnancy is unknown.
2. The disease is characterized by signs and symptoms which, although easily recognized, are not so readily evaluated.
3. All forms of treatment are empirical and generally designed to control symptoms. Most dependable and perhaps most radical is termination of pregnancy.

*Etiology:* Since treatment is necessarily colored by the physician's views regarding etiology, it may be well to recall that there are at least a dozen prominent theories receiving support, each with its therapeutic implications. The placenta occupies an important place in these explanations and not without good reason. Whether we lean toward a true toxin, a metabolic poison, an endocrine imbalance or arteriolar spasm, the placenta will be found to play a prominent rôle. Indeed, the concept that arteriolar spasm plays an important intermediate part in the disease is rapidly gaining support. Certainly many of the clinical findings as well as some of the inconsistencies noted at the autopsy table can best be accounted for on this basis. If the placenta plays an important etiologic rôle—and I believe it does—then any system of treatment must take cognizance of a fact that as long as the toxemia patient harbors a functioning placenta, the disease continues to be a real threat, even if the patient may at first respond to symptomatic treatment. Furthermore, when remedial measures fail to bring improvement and control of symptoms, then the time has come when further prolongation of pregnancy, regardless of the period of gestation, is fraught with grave danger and I seriously question both the

\*Presented before the Ninety-third Annual Session, Iowa State Medical Society, Des Moines, April 20 and 21, 1944.

†From the Department of Obstetrics and Gynecology, University of Michigan Medical School, Ann Arbor, Michigan.



wisdom and our right to carry these patients further. When the last word on toxemia of pregnancy has been written, it is my belief that the placenta will be revealed as the source of causative factor  $x$ . I grant this assumption may, in part, be a matter of expediency, for it tends to rationalize the philosophy of termination when the symptoms cannot be controlled. It is not all expediency, however, because there is abundant evidence to show that this amazing organ, the placenta, is really and truly the source of the patient's dilemma. But this is neither the time nor the place to elaborate on this highly theoretic aspect of the problem.

*Symptoms:* One might think that the signs and symptoms of preeclampsia were well recognized and their import thoroughly comprehended. Our evidence shows that this is not true on at least two counts. First, the early manifestations such as progressive mild hypertension, 140 systolic over 90 diastolic, and excessive weight gain, more than one pound per week, either are not looked for or else they are ignored. Likewise, albuminuria, which may precede but commonly follows evidence of abnormal fluid storage and hypertension, is often missed. Hasty urinalysis or use of the well-known sink test may be partly responsible for this situation. The warning foreshadowed by these incipient changes are important, since their prompt recognition permits early and better evaluation of the patient and allows for greater choice and trial of treatment. The second serious shortcoming in this connection lies in the faulty interpretation of signs and symptoms as the patient approaches the convulsive phase. This is easy to understand because it may be difficult on the basis of blood pressure, weight gain, and albuminuria to distinguish preconvulsive patients from those who may be carried with a fair margin of safety. It is here that we must depend on such prognostic aids as eyeground studies and evaluation of the patient's general appearance. Except in differential diagnosis and as a means of guiding treatment in the convulsive phase, blood chemistry has proved of little value in our hands. Since narrowing of the retinal vessels may be observed before vision is notably disturbed, examination of the eyegrounds often proves helpful in determining the seriousness of the patient's condition. Angiospasm of the retinal vessels and the more serious retinal changes which follow angiospasm may well reflect similar lesions in the brain and other organs of the body. If, and when, this is confirmed, funduscopic examination will certainly become our most valuable indicator of therapeutic success and prognosis. Arteriolar spasm as commonly seen in the retinal vessels is highly provocative in any

consideration of pathogenesis. It should also make us realize that we must look beyond the dead tissue obtained at the autopsy table to discover the true pathology of this disease. Indeed, the limitations of present-day histologic study is becoming increasingly apparent. Until some method is evolved which permits microscopic evaluation of living tissue, it appears that the true pathology of toxemia will remain what it is today, an inconstant picture with obvious affinity for the kidneys and liver.

*Treatment:* Since 1935 we have consistently followed one general program of treatment for all our toxemia patients. This treatment has been characterized by bed rest; low salt intake; neutral diet; ammonium chloride; abundant fluids, 2,000 to 4,000 cubic centimeters per day; and sedation.

The use of neutral diet was based on the work of Newburgh and Lashmet. The diet consists of foods which leave equal amounts of acid and base ash plus other foods which yield a neutral ash. The diet is prepared without salt and there is no reduction of protein, the average patient receiving an average of 90 grams of protein per day. Bread and milk represents the simplest diet of this type. Thus one quart of milk yields an alkalinity equal to the acidity yield of eight and one-half slices of bread. The total amount of one class of food with reference to the other must be carefully controlled, and it is important that all of the food in the diet be eaten. Given a free choice, patients will invariably choose those foods leaving an alkaline ash and send back the acid ash foods. The accompanying diet is a 1,400 calorie neutral diet outlined for use in the treatment of toxemia of late pregnancy.

When edema is present, ammonium chloride, approximately 3 to 4 grams in gelatin capsules, is given three times daily. Administration with meals minimizes gastric irritation and nausea. The ammonium chloride is broken down in the liver to form urea and the chloride ion. The urea is excreted as such while the chloride ion displaces the bicarbonate radical ion ( $\text{H}+\text{Cl}^- + \text{Na}+\text{HCO}_3^- \rightarrow \text{Na}+\text{Cl}^- + \text{CO}_2 + \text{H}_2\text{O}$ ). Thus a relative acidosis is produced since the above reaction results in a decreased "alkali reserve" of the body and a diminished carbon dioxide combining capacity of the blood. Much of the sodium chloride produced in this reaction is excreted in the urine. The end result, then, of the administration of ammonium chloride is the excretion of sodium chloride. This is desirable in the presence of edema since loss of sodium chloride from the body is accompanied by a diminution of extracellular fluid volume and renal diureses. The amount of fluid loss (weight decrease) may be considerable. However, with prolonged and continuous use of

**NEUTRAL DIET FOR USE IN PREGNANCY**  
1,400 Calories—90 grams Protein

**DAILY MENU PLAN**

<b>Breakfast</b>	<b>Measure</b>	<b>Sample Menu</b>
12% fruit	$\frac{1}{2}$ cup	Whole orange
Cereal, cooked	$\frac{1}{2}$ cup	$\frac{1}{2}$ cup unsalted oatmeal
Egg	1	1 egg
Bread	1 slice, medium	1 (salt free) slice bread
Butter	1 teaspoon	1 teaspoon butter (salt free) or "washed" vegetable fat
Milk, skim	2 glasses	2 cups skim milk
Beverage		
<b>Lunch or Supper</b>		
Eggs or	2	
Meat, cooked	1 large serving	Egg salad—2 hard cooked eggs, 2 T. mineral oil dressing, onion and celery
Rice, cooked	$\frac{1}{2}$ cup	5 tomato slice salad
3% vegetable or fruit	$\frac{1}{2}$ cup	
Bread	1 slice, medium	1 (salt free) slice bread
Butter	1 teaspoon	1 (salt free) tsp. butter or "washed" vegetable fat
Milk, skim	1 glass	1 cup skim milk
Beverage		
<b>Dinner</b>		
Eggs or	2	
Meat, cooked	1 large serving	3 oz. lean roast beef (unsalted)
3% vegetable	$\frac{1}{2}$ cup	$\frac{1}{3}$ cup carrots (unsalted)
12% fruit or vegetable	$\frac{1}{2}$ cup	$\frac{1}{6}$ head lettuce, wedge salad with vinegar dressing
Bread	2 slices, medium	1 canned peach $\frac{1}{2}$ ( $\frac{1}{4}$ cup)
Butter	1 teaspoon	Bread (salt free) 2 slices
Milk, skim	1 glass	Butter (salt free) 1 teaspoon or "washed" vegetable fat
Beverage		

Use only fruits and vegetables on this list.

3% Vegetables	6% Fruit	12% Fruit
Asparagus	Cantaloupe	Apricots
Cabbage	Watermelon	Cherries
Cauliflower		Oranges
Lettuce	9% Vegetables	Orange juice
Mushrooms	Onions	Peaches
Radishes	Beets	Pineapple
Tomato juice	Carrots	Raspberry juice
Tomatoes	Rutabagas	
Celery	9% Fruit	15% Vegetables
Cucumbers	Grapefruit	Peas
	Grapefruit juice	Parsnips
6% Vegetables		15% Fruit
Pumpkin		Apples
Squash		Grapes
String beans		Pears
Turnips		

1. It is necessary to eat all of the food indicated.
2. All food is to be prepared without salt. Bread and butter should be salt free.
3. Coffee and tea may be taken as desired.
4. Avoid broths, gravies, "salt cured" meats.
5. Avoid commercially prepared foods containing salt (sodium chloride).

ammonium chloride the kidneys begin to produce ammonia in large quantities. When this occurs the chloride ion (originally freed from the ammonium radical in the liver) combines with the ammonium ion produced in the kidney and is excreted in the urine as ammonium chloride instead of sodium chloride. The desired result (renal excretion of sodium ion) is then no longer being accomplished. For this reason ammonium chloride is administered interruptedly, three days on and three days off. The story is not as simple as I have described it since the whole problem of acid base balance enters into the picture, the mild acidosis produced by the administration of ammonium chloride favoring diuresis and removal of edema fluids.

Management is further characterized by the daily administration of abundant fluids, 2,000 to 4,000 cubic centimeters, to insure adequate (1,500 to 2,000 cubic centimeters) urinary output. This is given by mouth when the patient is well enough to cooperate, while in the more toxic patients fluids are administered parenterally. Five or 10 per cent glucose solution is used when intravenous administration is desired. The fluid is given slowly and

prohibited only when there are signs of pulmonary edema or cardiac failure.

Bed rest and sedation are considered essential in all severe preeclamptic patients. The barbiturates are used and phenobarbital is preferred because of its prolonged effect. A common dose is .5 or 1 grain three times daily.

When there is no improvement after a reasonable trial with these measures, usually one week to ten days, pregnancy is terminated by the most conservative method. This may mean medical induction, using pitocin instead of pituitrin, or rupture of the membranes. A few cases have been bagged and rarely cesarean section has been resorted to. In the last few years bagging has practically dropped out of the picture. Cesarean section is elected primarily for indications other than the toxemia; for example, cephalopelvic disproportion, previous cesarean section, placenta praevia, and other similar complications.

In eclamptic patients the convulsions are controlled by the rectal injection of avertin (50 milligrams per kilo body weight). Morphine or intravenous barbiturates may also be used. While the use of avertin is said to be contraindicated because of the presumed existence of liver damage due to the toxemia, we have not observed any harm either immediate or late from its use and it does control the convulsions. Since many of these patients are dehydrated although edematous, 5 to 10 per cent glucose solution is administered intravenously unless, of course, there is evidence of pulmonary edema. When the latter is present, venesection and the withdrawal of 300 to 500 cubic centimeters of blood is carried out. Magnesium sulfate is seldom used any more in our clinic. An indwelling catheter is placed in all eclamptic patients and the urinary output carefully noted. The blood pressure is taken at frequent intervals and ap-



praised along with other significant clinical findings. After a few days, when the patient's condition has definitely improved, pregnancy is terminated by inducing labor.

So far no mention of the child has been made. Proper treatment of the mother is also in the best interest of the child, and in our experience the premature child of a less toxic mother has a better chance of ultimate survival and good health than the slightly more mature infant of the highly toxic mother.

We do not subscribe to the idea of carrying these patients for any protracted period of time after a convulsive seizure. That this can be done is well known, but it cannot be denied that the contributing factors responsible for the toxemia, whatever they may be, are still present and we do not choose to subject the patient to the hazards, either immediate or remote, of a prolonged, although controlled toxemia once the period of fetal viability has been safely reached.

By this system of treatment we have lowered our maternal and fetal mortality 50 per cent and, in addition, we feel we have reduced our late morbidity. We control symptoms and, by hydrating our patients, believe the likelihood of permanent damage to the parenchymatous organs, especially the kidneys, is notably lessened. Our results tend to prove this.

In 1938 De Alvarez-Skinner, a member of my staff, reported on our cases. He found our maternal mortality rate for all toxemia patients prior to 1931 (based on 435 cases) was 7 per cent. During the period 1931 to 1938, this maternal mortality rate was reduced over 50 per cent to 2.6 per cent. A similar reduction was noted in fetal mortality, from 30 per cent prior to 1931 down to 16 per cent during the period 1931 to 1938. De Alvarez-Skinner has recently completed another study (soon to be reported) of our more recent cases covering the years 1935 to 1942, including 224 patients. Seventy-six per cent of this group of 224 patients were in Group B (preeclampsia and eclampsia) of the American Committee on Maternal Welfare Classification. While the uncorrected maternal mortality rate remains practically the same, 2.3 per cent, the corrected rate was found to be much lower (0.45 per cent). Sixty-three per cent of all our toxemia patients went on to spontaneous delivery. Thirty-seven per cent were terminated, usually by medical induction (53 per cent) or rupture of the membranes (14 per cent). Ten patients or 4.4 per cent, were delivered by cesarean section but the indications were primarily for reasons other than toxemia. There were four deaths in the toxemia group, an uncorrected mortality rate of 2.3 per cent. None

of these deaths occurred in the patients delivered by cesarean section.

Termination of pregnancy definitely colors every remedial system which incorporates this practice for unresponsive cases. Since the criteria for interruption, the number of interruptions, and the methods used are seldom made clear, a true comparison of therapeutic systems is extremely difficult.

As previously stated, our treatment included the free use of fluids in the belief that damage to the liver and kidney, both immediate and late, was thereby lessened. In 1942 Simrall of my staff reported on 100 of our patients who were carefully studied a year or more following their toxemic episodes. He concluded that there was no evidence of significant vascular or renal morbidity in patients known to be normal prior to their abnormal pregnancy. Simrall further observed, and in this he agreed with Reed and Teal, that much of the morbidity attributed to toxemia may be due to antecedent, unrecognized vascular disease.

While we believe in the system of treatment here outlined, we recognize it for what it is: namely, a method of symptom control.

Good results have been attributed to many remedial measures. One may treat toxemia by sedation (Stroganoff), by dehydration (Temple), by hydration (described here), by purgation (Tweedy), or by any one of several other common methods and still obtain commendable results. This may be due to widespread acceptance of the principle that when improvement is no longer evident, pregnancy should be terminated. Doubtless, this plays an important part but I believe there is another contributing factor. Most therapeutic systems have only sedation in common, and this may actually be one of the most important features of any treatment. The quieting influence of the barbiturates is well recognized. Similarly, the ability of the morphine to control convulsions has long been accepted. When a drug is given, its effect may be obvious or it may seem to work in mysterious ways. For example, the use of morphine in toxemia has persisted because it controls the convulsions of eclampsia, but patients so treated often improve regardless of what else is done. This improvement has been attributed to a shift in acid-base balance induced by the decreased respiratory rate. There is another effect, however, which also deserves consideration. Both morphine and the barbiturates cause a vasodilatation. The effect of morphine on vascular spasm and blood pressure in man has not been so thoroughly studied as it should be, but in the mouse, cat, and rabbit morphine causes a drop in blood pressure. It also causes a vasodilatation as has been demonstrated

by windows placed in the cranium to permit observation of a pial vessel. In general the effect of morphine on blood vessels in man is indicated in the following statement taken from Supplement Number 165 to the Public Health Reports. I quote from *The Pharmacology of The Opium Alkaloids*, Part I, by Hugo Krueger, Nathan B. Eddy, and Margaret Sumwalt: "More than 70 papers could be listed purporting to throw light on a possible effect of morphine on blood vessels. The evidence as a whole favors the occurrence of a vasodilator effect." The vasodilator effect of the barbiturates is marked. Their effectiveness in this respect have been recognized for some time. It is this vasodilator effect of these commonly used drugs that may play a key rôle in accounting for the improvement noted. If arteriolar spasm represents an important phase in the pathogenesis of toxemias of late pregnancy, then it requires no stretch of imagination to visualize the part played by vasodilator drugs like barbiturates, morphine, and avertin in the management of this disease.

Excellent results have been reported with use of *veratrum viride* (veratrine). The effectiveness of this drug was well recognized by our early predecessors. Bryant and others have revived its use in the treatment of eclampsia with outstanding success. The beneficial effects following the use of this drug are attributable to its vasodilator action. *Veratrum viride* causes a rapid and sometimes dramatic drop in blood pressure. Its vasodilator effect can be seen in the eyegrounds of toxemic patients during administration of the drug. Actual release of arteriolar spasm has been observed by Falls in our hospital during the injection of veratrine for the treatment of toxemia. The sedative drugs, morphine and the barbiturates, are less spectacular in their vasodilator effect but none the less capable of releasing the angiospasm which today looms so importantly in the pathogenesis of toxemia of late pregnancy.

### EYE FINDINGS IN DIABETES\*

IRA NELSON CROW, M.D., Fairfield

I know of no better example in which cooperation and teamwork can be used to greater advantage than in the management of diabetes mellitus. It is a universal disease, and while it may attack a person of any age, and either sex, we find the highest incidence in the middle-aged, obese female of the Jewish race. Very few of the chronic diseases have received more scientific study and research than diabetes mellitus, and this of course has not been without its reward. In recent years

there seems to have been a revived interest in this age old disease. This is perhaps due to the fact that now there is an ever increasing group of young patients suffering from diabetes mellitus and its complications. Prior to the discovery and extensive use of insulin, in the early twenties, no such large group existed. Then the young diabetic patients did not live long enough to accumulate into a large clinic for anyone, or even long enough to develop many of the eye complications. The reason is obvious since about all that was offered in the way of treatment was a slow, starving, restricted, carbohydrate diet, which most of them would not accept. For this they could scarcely be blamed, because whether they did or did not accept it, the end result was about the same. They promptly died. Further evidence of the increasing number of young sufferers is shown in a report by O'Brien and Allen<sup>1</sup> in which they recorded their findings in the study of the media and fundi of 555 young diabetic patients. With modern treatment, therefore, and since a diabetic patient is never cured, the clinics are growing larger, the duration of the disease longer, and consequently the incidence of ocular lesions more frequent.

The varied complications occur in 20 to 30 per cent of the diabetic patients after the disease has progressed from five to ten years. Of course, general debility with its accompanying infections, or arteriosclerosis, or poisoning from alcohol and tobacco, play a definite part in the onset of eye manifestations, especially in the older patients. In this connection it is interesting to note that Joslin and others have long felt that diabetes mellitus is an influence in the development of arteriosclerosis. Clinically there seems to be considerable evidence of premature arteriosclerosis in diabetics.

The almost simultaneous development of diabetes in both members of similar twins, and the greater incidence of diabetes in blood relatives is evidence that the disease may be inherited.

Perhaps we should review briefly the metabolic process that produces a diabetic. In the normal individual, the hexoses, fructoses and glucose, which are the end-products of carbohydrate digestion, are carried by the portal blood to the liver where most of them are stored as glycogen. Some glycogen is also stored in the muscles. This can be drawn upon to furnish heat and energy. The glucose formed by the metabolism of protein, and to a lesser extent of fat, is stored and used in the same way. Normally the blood sugar value may vary from 0.07 to 0.12 per cent, averaging about 0.1 per cent.

On the other hand, in the diabetic patient, to a greater or less extent depending upon the severity of the disease, the glucose is not stored as glycogen

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but accumulates in the blood stream. The blood sugar value of 0.13 per cent is generally regarded as advanced enough to warrant the diagnosis of diabetes mellitus. To a large extent this excess of glucose is lost in the urine. Hyperglycemia and glycosuria may occur in the diabetic patient even if he is fasting. Apparently sugar is formed from the body protein and fat in the liver. Experimentally, hepatectomy of animals causes a rapid fall of blood sugar. The increased breakdown of protein is shown in the high nitrogen excretion and in the constant ratio of dextrose-nitrogen in the urine. It is generally considered that in the diabetic individual the breakdown of the fatty acids stops at the butyric acid stage. Products of this four-carbon fatty acid ( $\text{CH}_3\text{CHOH.CH}_2\text{COOH}$ ), namely aceto-acetic and betahydroxybutyric acid, accumulate in large quantities in the body and are excreted in the urine. This acidosis if unchecked leads to actual coma and death.

Lipids, the name given to all substances closely connected with fat metabolism or resembling fats, are usually present in the blood in three forms, triglycerids, phosphatids and cholesterol. I shall not take time to any more than mention these. It has been thought for some time that fat economy in man is intimately associated with the etiology of arteriosclerosis. I mention this now since it has a direct bearing on what I wish to say later regarding the retinal changes in diabetic patients. Aschoff<sup>2</sup> championed the theory that lipoids are taken from the blood stream through the endothelium of the vessels and deposited in the intima, preliminary to calcification of the involved areas. On the other hand, it has been shown that the well insulinized patient on a high carbohydrate, low fat diet may not show a hypercholesteremia. The body economy has a special preference for using carbohydrates over that of fat; especially is this true if it has for ingestion a large amount of carbohydrate with adequate insulin. Fat metabolism is slow while carbohydrate metabolism is very rapid. Macallum<sup>3</sup> pointed out that carbohydrate is normally a fat sparer far out of proportion of the relative caloric values of the two. Thus 50 grams of dextrose (about 200 calories) in its oxidation will spare the metabolism and possible breakdown into its betahydroxystearic acid of 228.2 grams of stearin (tristearin, or fat). This amount of stearin or fat in complete combustion would represent 2,100 calories. However, because the oxidation of stearin to its end-products is slow, the inefficiency of fat metabolism is evident. Fat is metabolized only when its utilization is made obligatory by the lack of adequate carbohydrates. For the same energy expenditure, it is readily seen

why the high carbohydrate, low fat, low calory diet is better. Certainly, then, much of this fat is deposited in the body. Starvation, which is nothing more or less than a high fat diet of endogenous origin, is associated with the tremendous deposition of neutral fat in the liver cells. It is reasonable to believe, therefore, that some neutral fat which has been brought from the fat depots might be redeposited within the intima of the blood vessels, especially the arterioles, in spite of the findings at times of a low level of blood cholesterol and the absence of hyperlipemia.

The liver is the chief, if not the only site of oxidation of the higher fatty acids down into their aceto-acetic acids and ketones, which are in turn directly used by the body tissues much as is dextrose.<sup>4</sup> In the oxidation of fat, ketones are created in excess of what can be used in the body immediately, and are found in the urine. However, not all the fat is oxidized down into ketones, and the great bulk is redeposited in the liver and the arterioles.

In the foregoing I have tried to set forth and emphasize the effect of diabetes mellitus on the intima of the blood vessels, particularly the end arteries, showing that this is a metabolic and not an inflammatory process, because the eye lesion most frequently associated with this disease is diabetic retinopathy. Formerly this was referred to as retinitis; but since it is not an inflammatory process, it is now generally accepted as retinopathy. This change of nomenclature was not accomplished, however, without considerable controversy a few years back.

In diabetic retinopathy the appearance of the fundus is, as a rule, in a normal disk. Occasionally the nerve head shows edema and hemorrhages. Arranged in a circular manner around the macula, or scattered over other areas of the fundus, often along the temporal vessels, are minute, whitish, glistening foci, which are probably due to fatty degeneration. In the advanced cases the whole macular region may be filled with fluffy snowbank deposits. There also may be small, round hemorrhages in the deeper layers of the retina. These hemorrhages are probably caused by the diapedesis of the red blood cells through the fragile walls of the deep terminal capillaries. Large hemorrhages into the retina and the vitreous may occur. The picture is very much like that of arteriosclerotic, renal, or hypertensive retinopathy; in fact, so much so that a fundus differential diagnosis is frequently difficult or impossible. All these diseases show a similarity in capillary fragility. Friedenwald recently showed this condition to be present in cases of diabetic retinopathy. The late Dr. Sanford R.

Gifford stated that this capillary fragility calls for an increased supply of vitamin C and also vitamin B complex, in addition to the general treatment.

The normal lens sugar is from 20 to 30 per cent of the blood sugar. When the blood sugar is maintained at a high level for a long period of time, diabetic cataracts occur. This may be an expression of the general inability to utilize glucose. There may be a constant change in the lens. When the blood sugar level increases rapidly myopia frequently develops, due to increased refractive power of the lens. On the other hand, when the blood sugar level is rapidly reduced by insulin or diet, hyperopia may result. There may be a variation from one to four diopters. This osmotic disturbance has been shown in rapid dehydration in other diseases also. Comparable changes have been produced experimentally. For example, Duke Elder in 1940 reported that the subcutaneous injection of 0.25 grain of sodium chloride into a frog made the lens opaque, and this opacity rapidly disappeared on plunging the frog into fresh water. The process, regulating and stabilizing this osmosis, is not fully understood. We do know, however, that the lens capsule is permeable to diffusible substances such as water, sugar, and salts, and that the lens matrix contains free water as well as water fixed to the protein colloids. When dehydration takes place in the blood and subsequently the aqueous humor, the free water will ultimately diffuse out of the lens, which is reduced in bulk, and therefore its capsule becomes wrinkled. This appearance is often the earliest symptom seen. These changes are reversible if the water is rapidly replaced. But if the water in the colloids is sufficiently interfered with and the protein coagulated, the opacities are permanent.<sup>5</sup>

Lipemia retinalis is a condition in which the blood fat, usually above 4 per cent, is mulsified to such a degree that it causes an alteration of the appearance of the blood. It is rare, involves both eyes, and occurs in severe diabetic crises. The appearance of the fundi can scarcely be confused with any other ophthalmoscopic picture. The changes are limited entirely to the retinal vessels, which appear much larger than normal. Their color is a pale pinkish, creamy hue. Some have called it a light salmon. In advanced cases it is very difficult to differentiate between the arteries and the veins. The remainder of the fundi and the optic disks are normal in color. If the patient does not die in the crisis and treatment is promptly instituted, the normal color will return as soon as the blood fat returns to normal, which usually is in a few hours.

Retrobulbar neuritis may occur in diabetes. In these debilitated patients the susceptibility of the

papillomacular nerve fibers or the retinal ganglion cells to infection or metabolic toxic agents, in all probability, is the cause. There is a marked disturbance of the central vision of both eyes, with a relative central color scotoma. There is sometimes a pallor of the temporal portion of the disk, which may go on to partial or complete atrophy.

Iritis is relatively rare, regardless of the degenerative changes in the blood vessels and the pigment epithelial layer. When present, it is likely to produce an exudate in the anterior chamber. It is usually due to intercurrent infection.

Rarely does paresis of the extraocular muscles occur. If and when it does, it is probably caused by a peripheral neuritis similar to the effects of the disease in other parts of the body.

DeSchweinitz and Fewell were first in this country to call attention to the frequency of tobacco amblyopia in diabetic individuals. About the first trouble the patient notices is difficulty in performing fine work or reading. The cause of this is a small, relatively central scotoma appearing simultaneously, as a rule, in both visual fields. The peripheral fields and the ophthalmoscopic picture are normal. In neglected cases, however, a slight temporal pallor of the nerve may develop later. In addition to the general treatment, large doses of thiamine chloride are indicated.

Other rare complications of diabetes include glaucoma and thrombosis of the central retinal vein.

In the general management of the diabetic patient we find some interesting facts. When the liver becomes fatty, the patient's carbohydrate tolerance seems to improve and he becomes more sensitive to insulin. Hypoglycemia replaces hyperglycemia, and his regular dose of insulin may throw him into shock. It does not necessarily follow, then, that with improved carbohydrate tolerance, under complete insulin control, the diabetic patient is going along normally. In fact, sudden remarkable improvement with increased sensitivity to insulin may be the first clinical evidence that deposition of fat in the liver has begun. Close observation of the patient at this stage becomes imperative for the general practitioner and the ophthalmologist alike. By their united effort they may prevent or, at least delay, some of the dreaded accidents to which the diabetic person is heir. Perhaps the gravest of these accidents directly related to arteriole changes is retinal hemorrhage.

Liberal or adequate amounts of protein should be added to the diet of the older patients. The protective value of animal protein in the accumulation of fat in the liver and the degeneration of the liver has been demonstrated by Goldschmidt, Vars, and Ravdin.<sup>6</sup> There should be an attempt to



keep the blood sugar at its optimal level. I believe most clinicians feel that the persistent effort of lowering the blood sugar level in these older patients is detrimental. Of course, one should strive to maintain the average weight and aglycosuria if possible. The damaging effect of absolute or even relative hypoglycemia in the arteriosclerotic diabetic patient is generally recognized. We know that the nondiabetic arteriosclerotic patient often has a relatively high blood sugar level and high renal threshold for dextrose, therefore showing no urinary overflow of sugar. We feel also that it is not good policy to reduce very much the blood sugar level of these patients. So it would seem that the same reasoning should be exercised in the management of the diabetic, arteriosclerotic patient, for to reduce the blood sugar level below the point of aglycosuria is dangerous. In these older patients blood sugar determination should be made regularly, especially after the stage of aglycosuria has been attained, in order to be certain that the blood sugar level is not too low but somewhere near the threshold of that particular patient. The physiologic level of the blood sugar in these patients might be as high as 170 or 180 milligrams during the fasting stage and 250 milligrams at the peak following meals, while the average is approximately 120 and 170 milligrams. Therefore the obese patient with advanced arteriosclerosis should not be subjected to weight reduction too rapidly. The appearance of ketons in the urine of such a patient would indicate that his caloric intake in the form of carbohydrate or protein was deficient, and that endogenous or dietary fat must be avoided. A total of 45 grams of fat daily is somewhere near the minimum of fat necessary for weight maintenance after a high carbohydrate diet has been prescribed. The liver glycogenizes more effectively when the blood sugar is high. This is a factor favorable to the arteriosclerotic patient in surgical risks. On the other hand, the blood sugar level which would be physiologic for the young diabetic patient might be a relative hypoglycemia for the old diabetic patient with arteriosclerosis. Again, reducing this hyperglycemia too rapidly in the latter might call forth a compensatory response from the suprarenals, which in turn would lead to hypertension.<sup>7</sup> It is thought that some of the hemorrhage into the retina and the anterior chamber following cataract extraction might be the result of postoperative hypoglycemia. This has led many surgeons to omit the last dose of insulin prior to cataract operations, hoping to prevent this dreaded accident.

In an attempt to prevent some of the vascular manifestations early in diabetes, the patient should

have a diet high in carbohydrates, low in fat and calories, and with adequate insulin if needed, so that excessive stores of fat in the body may be reduced as far as possible before arteriosclerosis develops. Although this procedure will not prevent the eventual development of fatty liver, it will prevent that type of hyperlipemia we so commonly find in the untreated or poorly treated diabetic patient. Thus it is reasonable to believe that arteriosclerosis may be delayed.

After the fat has been deposited in the intima and calcification has taken place in the arterioles, our aim should be to prevent unnecessary fat mobilization and inefficient fat metabolism by keeping the diet adequate to maintain the proper body weight, holding the fat intake to about the minimum of 45 grams, giving a relatively high carbohydrate intake of 250 to 300 grams, and protein 85 to 150 grams. Loss of weight and ketonuria is evidence that the body is not sparing fat but metabolizing endogenous fat. One should guard against heroic marked reduction of blood sugar level, only reducing it when it is associated with the gain in body weight or glycosuria, or both.

Theoretically, the correction of this whole, complicated, abnormal, metabolic process should be obtained by the proper dose of insulin. If one could supply insulin to these patients in exactly the correct amount throughout the twenty-four hours, as is done by the pancreas in the normal individual, varying the amount to meet the demands of food, exertion, and infection, the ideal situation would be attained. Under this regime the diabetic would be almost a normal individual. However, as we have seen, this is not the whole picture. Because so much more insulin is needed after meals than is required at night, a diabetic patient may have hyperglycemia during certain times of the day and have a relative hypoglycemia at other times. In order to overcome this variation, Drs. Cyril M. MacBryde and Harold K. Roberts of St. Louis, Missouri, and Drs. Arthur R. Colwell and Joseph L. Izzo of Evanston, Illinois, and others are working on a combination of the rapid acting regular insulin with the slower acting protamine zinc, hoping to equalize the control of the blood sugar over the twenty-four hour period. They have discovered, however, that alkalinity and acidity affect the amount of the two kinds of insulin found in the final mixture. To avoid this uncertainty, the insulins are mixed and adjusted to a slight alkalinity, about the same as that found in the body tissues. Perhaps it is not too much to hope that some such insulin may soon be perfected. The whole field of medicine and surgery is progressing so rapidly that results and

conclusions at times seem almost miraculous, and we should never be surprised but always ready and willing to assume greater responsibilities.

In conclusion, I should like to say that the proper management of the diabetic patient is an excellent example of the necessity of cooperation between the internist and the ophthalmologist. The responsibility of the internist in eye accidents of his diabetic patients does not cease altogether when he turns his patients over to the oculist. On the other hand, the ophthalmologist has no right to relax or slacken his vigilance when he refers his diabetic patients to the internist for treatment. He should be vitally interested in the treatment the internist is giving, since it is only by this teamwork that the patients will receive the greatest benefit.

#### REFERENCES

1. O'Brien, C. S., and Allen, J. H.: Ocular changes in young diabetic patients. *Jour. Am. Med. Assn.*, cxx:190-192 (September 19) 1942.
2. Aschoff, L.: *Arteriosklerose. Beihefte z. Med. Klin.*, Berl. u. Wien., x:1-16, 1914.
3. Macallum, A. B.: Significance of ketogenesis. *Canad. Med. Assn. Jour.*, xxii:3-11 (January) 1930.
4. Stadie, W. C.: Fat metabolism in diabetes mellitus. *Ann. Int. Med.*, xv:783-797 (November) 1941.
5. Lawrence, R. D., Oakley, W., and Barne, I. C.: Temporary lens changes in diabetic coma and other dehydration. *Lancet*, ii:63-65 (July 18) 1942.
6. Goldschmidt, S., Vars, H. M., and Ravdin, I. S.: Influence of foodstuffs upon susceptibility of liver to injury by chloroform, and probable mechanism of their action. *Jour. Clin. Investigation*, xviii:277-289 (May) 1939.
7. Davis, B. L., Jr., and Van Winkle, W., Jr.: Effect of insulin and epinephrine on amino acid content of blood of adrenalectomized rabbits. *Jour. Biol. Chem.*, civ:207-215 (February) 1934.

## RUPTURE OF THE UTERUS DURING PREGNANCY

IVAN R. POWERS, M.D., and

RUSSELL S. GERARD, II, M.D., Waterloo

While rupture of the uterus is most common after the onset of labor, it may occur during pregnancy. It may occur spontaneously if the uterine wall is weakened from some congenital abnormality, stretched connective tissue following an old injury or incision, fatty degeneration, malignant disease, or fibroid tumors.

The site and extent of the rupture vary according to the condition of the uterine wall and the cause of rupture. The results of rupture also vary; the fetus usually dies, and the patient's life is endangered from the loss of blood. Fortunately, bleeding is generally limited from the retraction of the uterine muscle. Viscera may enter the uterine cavity, with obstruction of the bowel sometimes resulting. When rupture occurs in early pregnancy, it may be diagnosed as a ruptured ectopic gestation. In advanced pregnancy it may be mistaken for a premature separation of the placenta. It may also be regarded as a case of acute poisoning, mesenteric thrombosis, rupture of spleen or other viscera. The treatment is surgical. Prompt

abdominal section should be performed with repair of the uterine tear when possible or hysterectomy.

Arthur Sadowsky of the obstetric department of Hadassah University Hospital, Jerusalem, reports that in ten years there occurred thirteen cases of uterine rupture among 9,079 deliveries, an incidence of 1:698. All thirteen cases occurred in multiparas. The maternal mortality rate was 46.1 per cent and the fetal mortality rate 100 per cent. Eleven patients were operated on; one patient died before operation, and one, who was not operated on because the rupture was not diagnosed, recovered. The uterine rupture took place in the hospital in seven patients, one of whom died. The other six were admitted with signs of actual or threatened rupture; of these, five died.

The cause of spontaneous rupture of the uterus during pregnancy is often not known, but there are many theories as to its cause and some are often proved in microscopic examination of the tissue. Some of these theories are: defective hypertrophy of the wall of the fundus, hyaline degeneration of the uterine musculature, fatty degeneration of the muscle fibers, glandular penetration of the muscle wall, overdistention of the uterine cavity by an excessive amount of amniotic fluid, pathologic or faulty placental implantation, and hydatidiform mole perforating the uterine wall.

#### CASE REPORT

The patient, a white female twenty-eight years of age, was first seen on January 13, 1943, the day that she had an inevitable abortion after two days of severe lower abdominal cramps with some vaginal bleeding. Her last menstrual period had been October 3, 1942. The fetus and placenta were passed intact and upon examination appeared to be a two and one-half month fetus, placenta, and membranes. The patient had had one other pregnancy which was delivered at term in the home in 1939 after a labor period of thirty-two hours. The delivery was spontaneous with a second degree tear of the perineum which was repaired.

Four weeks after the initial visit the patient came to the office complaining of a mass in the lower right quadrant which she said was growing, and there was some tenderness and pain there. On bimanual examination this mass felt like a four month pregnant uterus pushed to the right side. With the history of the recent abortion, a uterine sound was passed and moved easily into the uterine cavity to the left of the mass, which was apparently attached to the uterus. The leukocyte count was 11,400, and she complained of some nausea. On February 11, 1943, she was taken to Allen Hospital, where a laparotomy was performed and a four and one-half month pregnant uterus was



found. Her appendix was removed and the pathology report was subacute appendicitis, grade 3. The uterus was not disturbed. She made an uneventful recovery and was discharged the tenth postoperative day.

The patient had no complaints after she returned home until the morning of March 5, 1943. While she was doing the breakfast dishes, she was suddenly stricken with a severe abdominal pain. This pain grew worse all day, and when she called us late that afternoon she was in severe shock with a blood pressure of 58/24, pulse rate of 148 per minute, and with marked pallor and dyspnea. She was taken to Allen Hospital where she was treated for shock with the application of hot water bottles, elevation of the foot of the bed, the administration of 1 cubic centimeter of adrenal cortex every hour, nasal oxygen, and intravenous fluids as follows: 3,000 cubic centimeters of 5 per cent glucose in normal saline solution, 1,500 cubic centimeters of blood plasma, and 1,500 cubic centimeters of whole citrated blood—all of which was given within nine hours. By 3:30 a. m., March 6, her color, respiration, pulse, and blood pressure were sufficiently improved to permit surgery, and a laparotomy was performed. The blood count before surgery was hemoglobin 58 per cent, erythrocytes 2,560,000, leukocytes 30,050, polys 93 per cent, and lymphocytes 7 per cent.

When the abdomen was opened gross free blood was found with multiple large clots, a dead five month fetus lying free in the abdominal viscera, and a ruptured fundus of the uterus. A high, subtotal hysterectomy was done. The patient was returned to her room in fair condition where 1,000 cubic centimeters of whole citrated blood was given in the following twelve hours. She made an uneventful recovery except for a spike of temperature to 104 degrees on the second postoperative day, and she was discharged from the hospital on her eleventh postoperative day. The pathology report was: rupture of the uterus with a large tear across the top of the fundus, placental tissue extending; no definite invasion of myometrium by deciduous tissue.

The patient did very well after her discharge from the hospital. On ferrous sulfate medication her blood count increased in three months to erythrocytes 4,580,000 and hemoglobin 11.5 grams. She was seen in November, at which time she said she was menstruating every twenty-eight days, showing a scanty flow for two days, and was feeling fine.

COMMENT

This is a report of a patient who apparently had a twin pregnancy. At two and one-half months one twin was aborted; one month and a half later

laparotomy was performed with removal of the appendix and the discovery of a four month pregnant uterus. Then at five months, the fundus of the uterus ruptured and a hysterectomy was done, following which the patient made an uneventful recovery.

LATTNER RETURNS TO HOSPITAL SERVICE

Lieutenant Frederic P. G. Lattner, United States Naval Reserve, has been released from active duty in the Naval Service to return to his former position of Executive Director of Hospital Service, Inc., of Iowa, the local Blue Cross Plan, according to an announcement made by Joseph F. Rosenfield, president of the board of directors. He took up his duties October 9. Lieutenant Lattner had been on duty in the Bureau of Naval Personnel at Washington, D. C., since December, 1942.

Mr. E. P. Lichty, Executive Director during Lieutenant Lattner's absence, is now associated with the Chicago Blue Cross Plan.

The local Blue Cross Plan began operations in January, 1940, and at the present time has 175,000 members covered in this non-profit, low-cost method of budgeting for hospitalization. It was at first offered to workers in industrial plants through their places of employment. Rural residents and their families are now being offered these benefits through health programs of the various county farm bureaus. Polk County pioneered in this project; Dallas, Jasper and Marshall counties followed with a total enrollment of about 4,500 members to date. Fourteen other counties are now taking preliminary steps to offer this coverage to their rural people.

Blue Cross is a voluntary method of budgeting for hospital care, sponsored and guaranteed by member hospitals. There are 70 participating hospitals of the local Plan.

PREVALENCE OF DISEASE

Disease	Sept. '44	Aug. '44	Sept. '43	Most Cases Reported From
Diphtheria .....	11	8	34	Woodbury, Warren
Scarlet Fever .....	66	54	109	Polk, Des Moines, Cass
Typhoid Fever.....	20	7	4	Audubon
Smallpox .....	1	0	0	Dubuque
Measles .....	5	23	15	Calhoun, Cedar
Whooping Cough ...	30	29	152	Des Moines, Woodbury, Black Hawk
Brucellosis .....	32	32	21	For the State
Chickenpox .....	8	17	10	Polk, Washington
German Measles....	4	1	2	Des Moines, Story
Influenza .....	0	0	2	
Malaria .....	21	49	5	Clinton
Meningitis .....	2	7	12	Franklin, Henry
Mumps .....	39	49	16	Dubuque, Johnson, Black Hawk
Pneumonia .....	9	8	11	Woodbury, Black Hawk
Poliomyelitis .....	60	48	107	Polk, Des Moines, Johnson
Tuberculosis .....	58	60	54	For the State
Gonorrhea .....	250	200	168	For the State
Syphilis .....	121	150	208	For the State

# STATE DEPARTMENT OF HEALTH

*Nathaniel Diering*

## PREVALENCE OF POLIOMYELITIS IN IOWA

Reported cases of poliomyelitis in 1944 (through October 21) totaled 166. No cases were notified during the first six months of this year. The accompanying table shows the number of cases recorded thus far during the current season of prevalence.

### POLIOMYELITIS IN IOWA

Months	As Reported 1944	10 Year Average 1934-1943	9 Year Median 1935-1943
January .....	0	2	2
February .....	0	2	2
March .....	0	1	1
April .....	0	1	1
May .....	0	1	1
June .....	0	1	0
July .....	16	6	4
August .....	48	31	13
September .....	60	76	24
October (through Oct. 21).....	42	47	27
November .....		16	8
December .....		7	2

In the above table, month-by-month totals for 1944 are compared with the expected number of cases (last two columns), based on the monthly average for the past ten years and on the median for a nine year period, respectively. The ten year arithmetic average includes the figures for the epidemic year 1940 when 929 cases were reported. In obtaining the nine year median, figures for the years of highest and lowest incidence are eliminated, thus accounting for monthly totals considerably below those of the ten year average.

Counties reporting above average incidence through October 21 included Polk (31 cases); Linn (11); Woodbury (9); Des Moines and Jasper (8 each); Black Hawk, Dallas, and Johnson (6 each); Henry (5); Iowa, Jefferson, Story, Iowa, and Washington (4 each); Appanoose, Benton, Boone, Lee, and Wapello (3 each); Cerro Gordo, Clinton, Dubuque, Keokuk, Louisa, Marion, Pottawattamie, Warren, and Wayne (2 each).

## NATIONAL VENEREAL DISEASE CONTROL CONFERENCE

Under Auspices of U. S. Public Health Service  
November 9 to 11, 1944  
St. Louis Medical Society Building  
3839 Lyndell Court, St. Louis, Missouri

## URBAN DISTRIBUTION OF POLIOMYELITIS VIRUS

It is not definitely known how widespread the virus of poliomyelitis is when the disease develops abnormal prevalence in an urban area. Epidemiologic investigations of past years, pursued by Frost and others, indicate that for each positive case about ten persons harbor the infection in nonparalytic form.

At the meeting of the American Public Health Association held October 3 to 5, 1944, Pearson, Brown, Rendtorff, Ridenour, and Francis reported results of a study conducted in a southern city of 160,000 during August of 1943. Altogether 102 cases were reported in that city last year. In the survey, special attention was given to an Area A in which thirteen cases had occurred in eleven homes and to an adjacent Area B in which families were free from reported cases of the disease.

Information as to the occurrences of illness considered an abortive form of poliomyelitis was obtained through home visits. Stool specimens, secured from members of households in Areas A and B were injected into monkeys. Inspection was made of the sanitary condition of premises, also of water, milk, and food supplies. Flies, mosquitoes, and other insects were trapped and tested for virus.

The virus of poliomyelitis was recovered in six of eight homes that sheltered a case of the disease. In five of the six households, members other than the patient were found to carry the virus. In Area B on the other hand, virus was not demonstrated, although over 10 per cent of a group of 350 persons in the area gave the history of recent illness.

The report of this investigation is summarized as follows:

1. The virus of poliomyelitis was demonstrated in contacts in homes with positive cases but not in an adjacent area free from frank cases.
2. Virus was not found in flies, mosquitoes, roaches, ants, rats, or mice.
3. No relationship could be demonstrated between swimming pools and the occurrence of cases.
4. Opening of schools showed no increase in the number of cases.
5. Prolonged human contact seems necessary to produce the disease in paralytic form; casual contact is probably insufficient to transmit infection.



# The JOURNAL of the Iowa State Medical Society

ISSUED MONTHLY

LEE FORREST HILL, Editor.....Des Moines  
DENNIS H. KELLY, Associate Editor.....Des Moines

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## AMERICAN PUBLIC HEALTH ASSOCIATION PROPOSES NATIONAL HEALTH PROGRAM

The American Public Health Association, by adopting the report of its Subcommittee on Medical Care on October 4, 1944, has officially gone on record as advocating a national compulsory health insurance program providing all preventive, diagnostic, and curative services for the entire population regardless of financial status. The Health Departments of the nation—federal, state, and local—would be the administrative agency and would thereby, presumably, have complete control of the practice of medicine in America. Even the Wagner-Murray-Dingell Bill, which has been cussed and discussed up and down the length and breadth of the land, is not as ambitious in its inclusiveness as is this program of the Health Association. Coverage under the Wagner Bill is limited to employed persons and the funds collected for medical phases of the program (some three billion dollars annually) would be raised by social insurance. But the Health Association's proposal covers everybody, financed by funds raised by social insurance plus general taxation. What such a program would cost annually is not suggested in the report, but it is a reasonable estimate that it would be several times greater than the Wagner plan.

In trying to understand why the American Public Health Association would put forth a medical care plan of this sort one needs to inquire first of all into what kind of an organization the American Public Health Association is and who in the organization are the backers of the plan. The answers to these questions are to be found in an editorial in the October 14 issue of *The Journal*

of the American Medical Association. In the first place the American Public Health Association is not a solid group of public health physicians with M.D. degrees. Physicians make up approximately a third of the membership. The remainder constitute other personnel to be found in public health departments and others interested in public health but not necessarily associated with a department. The total membership numbers 7,493 but the report is not the action of the Association in its entirety. Rather is it the action of the Subcommittee which prepared it, the Committee on Administrative Practice which approved it after certain modifications, and the Governing Council of whom forty-nine members voted for its acceptance. As the Journal points out "most of the names of those on the subcommittee are those of men long committed to federal compulsory sickness insurance and to federal control of all matters in the health field."

The significance of the Public Health Association's action in giving publicity to its proposal for a National Health Program, insofar as the practice of medicine is concerned, lies not so much in the immediate likelihood of such a plan of state medicine being forced upon the American people and the medical profession, but rather upon the eventual effect proposals of this type will have, if repeated often enough, upon the public mind, and, of greater significance, upon the minds of legislators if the impression is created that there is public demand for enactment of social legislation which would include governmental control of all health matters. In other words this action by the American Public Health Association is but another approach to the same objective as is contained in the Wagner-Murray-Dingell Bill, and presumably the initiating personnel of both proposals were in many instances identical.

To condemn all the objectives and needs as set forth in the Health Association's plan as being without basis in fact would be shortsighted on the part of the medical profession indeed. Although the American people enjoy the best medical service of any people in the world, nevertheless there is still much that needs to be done and can be done. But state medicine is not the method the American doctor or the American people want to follow. In fact they are convinced that such a course would lessen the quality of medical care rather than improve it. To maintain the system of private enterprise in medical practice and to progress under this system in meeting the problems of medical care which have developed along with social and economic changes is the method in which the physician believes and which he believes is best for the nation.

But a warning to our profession must be sounded. Progress in the socioeconomics of medical practice must be made. Failure to do so over too long a period of time furnishes ammunition to advocates of state medicine. It must be shown that the demonstrable needs of our citizens are a real concern of the medical profession and that these needs can be satisfactorily met under the efforts of private enterprise. Government assistance and cooperation must be sought and accepted for the accomplishment of those desirable objectives which private medicine cannot do by itself. By a joint program of mutual respect and cooperation between government and medical profession much greater heights can be obtained than by constant distrust one of the other.

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#### DELEGATES IN SPECIAL MEETING TO CONSIDER MEDICAL SERVICE PLANS

President Hennessy has called a special meeting of the House of Delegates for November 1 to consider the proposed Iowa Medical Service Plan. This is perhaps one of the most important occasions which has ever confronted the delegates of the Iowa State Medical Society.

Dr. Olsen and his committee members, and other officers of the Society who have contributed, deserve the warmest thanks for the splendid job they have done and the tremendous amount of work required in bringing before the delegates for their consideration such a complete plan. The committee has taken the special pains of contacting each member of the Society in military service in order that every member would have a chance to express his opinion. This is the democratic way of going about a problem of this sort. The JOURNAL takes the position that it is vital that Iowa physicians give the most serious consideration to the adoption of a medical service plan in Iowa. The social and economic trends in the last few years have been such that the demand for security of all our citizens has become a paramount issue. Many people have come to the conclusion that unless the doctors themselves make an effort to meet this demand for security against the havoc created by unexpected illnesses in the low income group, the demand will be met in some other way and this other way is obviously by governmental legislative edict.

While a great many objections can be brought forth against the plan Dr. Olsen and his group have outlined, nevertheless in its broad aspects it seems to us that the advantages far outweigh all objections. It is to be hoped, therefore, that in its deliberations on November 1 the House of Delegates will consider the Iowa Medical Service Plan in its broad aspects and not in troublesome

details. If the machinery for the plan can once be set in motion, it would seem altogether possible that cooperation on the part of everybody would result in ironing out the many difficulties inevitable as the program unfolds.

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#### BIOSYNTHESIS OF THIAMINE AND RIBO- FLAVIN IN THE INTESTINAL TRACT OF MAN

The current wave of consumption of the various components of the vitamin B complex may, in the not too distant future, be influenced by work now being carried on at Johns Hopkins University School of Medicine.

Najjar and Holt reported a year ago, in the November 13, 1943, issue of *The Journal of the American Medical Association*, that thiamine chloride was produced by bacterial synthesis in the human intestinal tract in quantities sufficient to make the likelihood of deficiencies rather remote, regardless of the intake of thiamine in the diet. They further showed in this study that the administration of succinylsulfathiazole would cause almost a complete disappearance of thiamine from the stools in a very few days.

This year, in the October 7 issue of *The Journal of the American Medical Association*, Najjar, Holt and three other associates reported on the biosynthesis of riboflavin in the intestinal tract of man.

Twelve adolescent boys were fed on a virtually riboflavin free diet. Estimation was made of the riboflavin content of the stools and of the urine, both in a control period and weekly for ten weeks after the riboflavin free diet was begun. The amount of riboflavin excreted in the urine and stools in these subjects was essentially the same, whether the subject was receiving a normal diet or a diet free of riboflavin. Administration of succinylsulfathiazole, however, did not, as was the case in thiamine chloride, result in a disappearance of riboflavin from the stools and urine. In fact, no important change was noted.

The inference drawn was that the bacteria responsible for producing riboflavin were probably not succinylsulfathiazole sensitive. The authors comment they have no reason to doubt that under certain conditions riboflavin deficiency does occur in man. Nevertheless, their observations cast doubt on the high and the universal requirement for this factor that has hitherto been accepted.

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#### DRAFT REJECTIONS AND MEDICAL CARE

Being discussed in many quarters at the present time are the statistics on rejection of draftees for physical or mental deficiencies. It has been advanced that some four million young men have



been rejected for military service because of physical and mental deficiencies and that at least one-sixth of these defects were easily remedial and an even higher proportion were preventable, especially in childhood. The inference drawn from these findings is that medical care in the nation has been at fault.

Granted that four million men have been rejected as being physically or mentally disqualified, nevertheless it does not necessarily follow that such disqualifications are the result of lack of proper medical facilities in the nation. There are many factors which must be considered before such a conclusion can be accepted. Some of these factors which have been pointed out are as follows: The standards of physical fitness have varied from time to time so that the conditions which disqualified a draftee earlier would not disqualify him at a later date. Furthermore, many of the defects were such as could not have been corrected. In other instances the importance of the defects, especially those occurring in childhood, was not realized and no effort was made to have them corrected even if this was advised and facilities were available for having such work done. The importance of people taking the initiative in seeking medical care and in making use of available medical facilities must not be overlooked. The situation is very well summed up by the statements of Dr. Harvey B. Stone in a hearing before the Pepper Subcommittee on Health and Wartime Education:

"To appraise the true significance of these findings from the standpoint of the health of the nation, the reasons assigned for rejection for military service should be broken down into a few general categories, first, as to their bearing on the health of the individual; second, as to their amenability to medical treatment. Such a study would lead to much more valuable judgments than ill-considered jumping to sweeping conclusions. For instance, one might make three broad classifications as to the interference with health and function of the individual by the condition for which he was rejected. The first of these are trivial or negligible, such as thousands of cases of errors of refraction. The second entail certain limitations on activity or impairment of health, but are not incompatible with usefulness and comfort. As examples, one might cite certain forms of heart trouble or muscular or skeletal damage. The third group comprises conditions that are largely or totally disabling. A similar rough division of the causes for rejection may be made from the standpoint of treatment; namely, conditions that can be readily corrected, those that can be controlled and improved, but not cured, and those beyond the ability of present-day

medical knowledge to do anything but alleviate."

To use the statistics of draftee rejections as an argument for the institution of state medicine is certainly open to question. Members of the medical profession are aware, as are others, of the need for constant efforts to bring better medical service to more people in the nation, but they are not willing to concede that this cannot be accomplished as well or better by maintaining the present system of medical practice. What would seem to be needed above all else is a harmonious, cooperative program between government and medical profession rather than a government dominated one, or one in which the government is left out altogether.

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#### MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

Meeting of the Medical Economics Committee and  
Committee on Medical Service and Public Relations  
October 15, 1944

The Medical Economics Committee and the Committee on Medical Service and Public Relations met in the board room of the Central Life Assurance Society Sunday morning, October 15, at nine a. m. Present were the following: Doctors R. D. Bernard of Clarion, M. I. Olsen and R. L. Parker of Des Moines, L. R. Woodward of Mason City, I. N. Crow of Fairfield, H. E. Stroy of Osceola, Fred Sternagel of West Des Moines, C. T. Maxwell of Sioux City, and Mr. E. M. Kingery of Des Moines.

The subject under discussion was the medical service plan to be presented to the House of Delegates November 1. The committees decided upon the name, the location of the home office, and other details of the plan, changing some items, but voting unanimously in approval of the final draft to be presented to the House. The meeting adjourned at six p. m.

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#### LAWRENCE J. LINCK WILL SPEAK IN DES MOINES NOVEMBER 24 AND 25

Lawrence J. Linck, Executive Director of the Illinois Commission for Handicapped Children, will be the speaker at two meetings concerned with the care of handicapped children to be held in Des Moines the week end of November 24 and 25.

On Friday, November 24, at 8:00 p. m., Mr. Linck will address the Spastic Club of Iowa at a session at the Hotel Fort Des Moines. His topic will be, "Essentials of a State Program for Cerebral Palsy." It will be open to the public.

"The Handicapped—A Challenge and a Promise" will be Mr. Linck's topic at a noon luncheon talk before the annual meeting of the Iowa Society for Crippled Children and the Disabled on Saturday, November 25. Reservations for this luncheon may be made with Mrs. Dorothy Phillips, Executive Secretary of the Iowa Society for Crippled Children and the Disabled, 404 Plymouth Building, Des Moines 9.

Widely known as the director of one of the most

extensive and progressive state programs for handicapped children in the entire nation, Mr. Linck has many additional services to his credit. He won the Distinguished Service Award of the Chicago Junior Chamber of Commerce for his work as director of the Chicago Syphilis Control Project from 1937 to 1939, he is a lecturer in public administration in the University of Illinois College of Medicine, and is a member of numerous government and state health councils.

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### MEDICAL OFFICERS NEEDED

The Civil Service Commission has announced a new examination for rotating internship and psychiatric resident positions at St. Elizabeths Hospital, the Federal institution for the treatment of mental disorders, in Washington, D. C. The positions pay \$2,433 a year, including overtime pay.

The internship consists of nine months of rotating service including medicine, surgery, pediatrics (affiliation), obstetrics (affiliation), and as conditions permit, psychiatry and laboratory. Applicants must be third- or fourth-year students in an approved medical school.

Psychiatric resident positions consist of nine months in psychiatry. Applicants must have successfully completed their fourth year of study in a medical school and they must have the degree of B.M. or M.D. In addition they must have completed an accredited rotating internship of at least nine months or be serving such internship at the time of making application. Persons who attain eligibility but who are still serving their internship may have their names submitted for appointment but cannot enter on duty until they have completed their internship.

There are no age limits for this examination and no written test will be given. Applications will be accepted until the needs of the service have been met. Application forms may be secured at first- and second-class post offices, from the Commission's regional offices, or direct from the U. S. Civil Service Commission, Washington 25, D. C.

Appointments to Federal positions are made in accordance with War Manpower Commission policies and employment stabilization programs.

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### UROLOGY AWARD OFFERED BY AMERICAN UROLOGICAL ASSOCIATION

The American Urological Association offers an annual award "not to exceed \$500" for an essay (or essays) on the result of some specific clinical or laboratory research in urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deems none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five

years. All interested should write the Secretary for full particulars.

The selected essay (or essays) will appear on the program of the forthcoming June meeting of the American Urological Association.

Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before March 15, 1945.

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### AMERICAN COLLEGE OF SURGEONS EXPANDS GRADUATE TRAINING PROGRAM

In expanding its program of Graduate Training in Surgery to assure adequate opportunities for advanced training in surgery, particularly for recent medical graduates when they return from service with the Armed Forces, the American College of Surgeons has enlarged its headquarters staff in Chicago and announces the following new appointments effective immediately.

Major General Charles R. Reynolds (M.C., Retired), former Surgeon General of the U. S. Army, has been appointed Consultant in Graduate Training in Surgery. General Reynolds was in the Army from 1900 to 1939; served in the Philippine Insurrection; was Chief Surgeon of the 2nd Army, A. E. F., in the first World War; was Commandant of the Army Field Service Medical School, Carlisle, Pennsylvania, from 1923 to 1931; and was Surgeon General of the Army from 1935 to 1939. He has been Director of the tuberculosis control program of the Pennsylvania State Health Department for the past four years.

Dr. George H. Miller, formerly Dean of the Faculty of Medicine and Chairman and Professor of the Department, American University of Beirut, Lebanon, Syria, has been appointed Director of Educational Activities. Dr. Miller served in the U. S. Army Medical Corps, A. E. F., in 1918 and 1919; was Associate Professor of Pharmacology and later Associate Professor of Medicine of the State University of Iowa College of Medicine between 1922 and 1932; and was with the American University of Beirut from 1932 to 1944.

The Department of Graduate Training in Surgery is under the general direction of Dr. Malcolm T. MacEachern, Chairman of the Administrative Board, working with that Board, and responsible to the Committee on Graduate Training in Surgery, of which Dr. Dallas B. Phemister of Chicago is Chairman, and to the Board of Regents. In addition to General Reynolds and Dr. Miller, the staff of the department consists of Dr. Paul S. Ferguson, Director of Surveys, and three assistants who conduct the surveys; and the field representatives conducting the regular Hospital Standardization surveys under the direction of Dr. E. W. Williamson, Assistant Director of the College, who assist as required in the graduate training program. The latter is a development of the basic work of the College in stimulating the improvement of hospital service.

(Continued on page 480)



# Roster of Iowa Physicians in Military Service

As of October 25, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (APO 230, New York, N. Y.) ..... Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.) ..... Major, A.U.S.  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) ..... Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claiborne, La.) ..... A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) ..... Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Camp Ellis, Ill.) ..... Capt., A.U.S.  
Hustcn, M. D., Centerville (Camp Bowie, Texas) ..... Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) ..... Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) ..... Capt., A.U.S.  
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) ..... Capt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas) ..... Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Ottumwa, Iowa) ..... Lt. Comdr., U.S.N.R.  
Ericsson, M. G., Cedar Falls (Camp Berkeley, Tex.) ..... Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.) ..... Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
Ludwick, A. L., Waterloo (Abilene, Texas) ..... Major, A.U.S.  
Marquis, F. M., Waterloo (APO 923, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Banana River, Fla.) ..... Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.) ..... Major, A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.) ..... Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Parris Island, S. Car.) ..... Lt. U.S.N.R.

## Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) ..... Major, A.U.S.  
Healy, M. J., Boone (Camp Chaffee, Ark.) ..... Capt., A.U.S.  
Shane, R. S., Pilot Mound (Des Moines, Ia.) ..... Lt. Col., A.U.S.

## Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 647, New York, N. Y.) ..... Major, A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.) ..... 1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.) ..... Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (APO 9787, New York, N. Y.) ..... Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.) ..... Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho) ..... Lt., U.S.N.R.  
Mailliard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) ..... Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.) ..... Major, A.U.S.

## Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash.) ..... Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.) ..... 1st Lt., A.U.S.  
Rofls, F. O., Parkersburg (Springfield, Mo.) ..... 1st Lt., A.U.S.

## Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.) ..... Capt., A.U.S.  
McVay, M. J., Lake City (Waco, Texas) ..... Capt., A.U.S.

Peek, L. H., Lake City (Jefferson Barracks, Mo.) ..... Capt., A.U.S.  
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) ..... Capt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Berkeley, Texas) ..... A.U.S.  
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) ..... Capt., A.U.S.  
Cochran, J. L., Carroll (Gulfport, Miss.) ..... Lt., U.S.N.R.  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Ft. Dix, N. J.) ..... Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.) ..... Capt., A.U.S.  
Seannell, R. C., Carroll (Denver, Colo.) ..... A.U.S.  
Tindall, R. N., Coon Rapids (Hines, Ill.) ..... Major, A.U.S.  
Wyatt, M. R., Manning (De Ridder, La.) ..... Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (APO 218, New York, N. Y.) ..... Major, A.U.S.  
Needles, R. M., Atlantic (APO 131, New York, N. Y.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.) ..... Capt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) ..... Lt., U.S.N.R.  
Mosher, M. L., West Branch (APO 560, New York, N. Y.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Camp Maxey, Texas) ..... Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) ..... Capt., A.U.S.  
Egloff, W. C., Mason City (Chandler, Ariz.) ..... Capt., A.U.S.  
Flickinger, R. R., Mason City (Tuscaloosa, Ala.) ..... Capt., A.U.S.  
Hale, A. E., Dougherty (Camp Forrest, Tenn.) ..... Capt., A.U.S.  
Harris, R. H., Mason City (Dyersburg, Tenn.) ..... Capt., A.U.S.  
Harrison, G. E., Mason City (APO 365, New York, N. Y.) ..... Col., A.U.S.  
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (Ayer, Mass.) ..... Capt., A.U.S.

## Cherokee County

Bullock, G. D., Washta (Camp Claiborne, La.) ..... Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Noble, R. P., Cherokee (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) ..... Major, A.U.S.  
Murphy, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Camp Crowder, Mo.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) ..... Major, A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.

## Clay County

Edington, F. D., Spencer (Fort Devens, Mass.) ..... Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.) ..... Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Glesne, O. G., Monona (Knoxville, Iowa) ..... Capt., A.U.S.  
Rhomborg, E. B., Guttenberg (APO 584, New York, N. Y.) ..... Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) ..... Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.) ..... A.U.S.  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) ..... Capt., A.U.S.  
Hill, D. E., Clinton (APO 9787, New York, N. Y.) ..... Capt., A.U.S.  
King, R. C., Clinton (APO 403, New York, N. Y.) ..... Capt., A.U.S.

Lenaghan, K. T., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Norment, J. E., Clinton (Washington, D. C.) ..... Lt. Comdr., U.S.N.R.  
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)  
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Snyder, D. C., De Witt  
 Spiegel, I. J., Clinton (Galesburg, Ill.) ..... Capt., A.U.S.  
 Van Epps, E. F., Clinton (APO 9921, New York, N. Y.) ..... Capt., A.U.S.  
 Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Wells, L. L., Clinton (APO 17172 New York, N. Y.) ..... Capt., A.U.S.

#### Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.) Major, A.U.S.  
 Grau, A. H., Denison, (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maire, E. J., Vail (Camp Howze, Tex.) ..... Capt., A.U.S.  
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.) ..... Capt., A.U.S.

#### Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Hines, Ill.) ..... 1st Lt., A.U.S.  
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) Major, A.U.S.  
 Fail, C. S., Adel (Pacific Beach, Wash.) ..... Lt., U.S.N.R.  
 Margolin, J. M., Perry (APO 5816, New York, N. Y.) Capt., A.U.S.  
 McGilvra, R. I., Guthrie Center (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mullmann, A. J., Adel (Camp Ellis, Ill.) ..... Capt., A.U.S.  
 Nicoll, C. A., Panora (Camp Campbell, Ky.) ..... Capt., A.U.S.  
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.) ..... Capt., A.U.S.  
 Wilke, F. A., Woodward (APO 627, New York, N. Y.) ..... Capt., A.U.S.

#### Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.) ..... Capt., A.U.S.  
 Gilfillan, G. W., Bloomfield (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.) ..... Capt., A.U.S.

#### Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Clark, R. E., Manchester (APO 419, New York, N. Y.) ..... Capt., A.U.S.

#### Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio) ..... 1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.) ..... Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.) ..... Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.) ..... Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sage, E. C., Burlington (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Dickinson County

Buchanan, J. J., Milford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henning, G. G., Milford (APO 96, San Francisco, Cal.) ..... Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtele, Cal.) ..... Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake (APO 600, New York, N. Y.) ..... Major, A.U.S.

#### Dubuque County

Beddoes, M. G., Cascade (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Conzett, D. C., Dubuque (APO 645, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio) ..... Capt., A.U.S.  
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.) ..... Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
 Hall, C. B., Dubuque (Lubbock, Texas) ..... 1st Lt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.) ..... Major, A.U.S.  
 Langford, W. R., Epworth (Miami Beach, Fla.) ..... Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.) ..... Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.) ..... Capt., A.U.S.  
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Olson, P. F., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Paulus, J. W., Dubuque (APO San Francisco, Cal.) 1st Lt., A.U.S.  
 Plankers, A. G., Dubuque (APO 758, New York, N. Y.) ..... Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.) ..... Major, A.U.S.  
 Scharle, Theodore, Duquque (APO Seattle, Wash.) ..... Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (Fort Leonard Wood, Mo.) Major, A.U.S.  
 Smith, C. W., Dubuque (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.) ..... Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas) ..... Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Great Lakes, Ill.) ..... Lt. Comdr., U.S.N.R.

#### Emmet County

Clark, J. P., Estherville (APO New York, N. Y.) ..... Capt., A.U.S.  
 Collins, L. E., Estherville (Camp Dodge, Iowa) ..... A.U.S.  
 Miller, O. H., Estherville (Seattle, Wash.) ..... Lt. Comdr., U.S.N.R.

#### Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.) ..... Lt. Col., A.U.S.  
 Sulzbach, J. F., Oelwein  
 Walsh, W. E., Hawkeye (Fort Chicago, Cal.) Lt. Comdr., U.S.N.R.

#### Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.) ..... Major, A.U.S.  
 Flater, N. C., Floyd (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mackie, D. G., Charles City (APO 493, New York, N. Y.) ..... Capt., A.U.S.  
 Miner, J. B., Jr., Charles City (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.) ..... Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) 1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.) ..... Lt., U.S.N.R.  
 Walton, S. G., Hampton (APO New York, N. Y.) ..... Capt., A.U.S.

#### Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.) ..... Capt., A.U.S.  
 Marrs, W. D., Tabor (Ardmore, Okla.) ..... Capt., A.U.S.  
 Powell, R. A., Farragut (Great Lakes, Ill.) ..... Lt. (jg), U.S.N.R.  
 Wanamaker, A. R., Hamburg (APO 989, Seattle, Wash.) ..... Capt., A.U.S.

#### Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.) ..... Capt., A.U.S.  
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.) ..... Capt., A.U.S.

Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Limburg, J. I., Jr., Jefferson (APO 503, San Francisco, Cal.) ..... Major, A.U.S.  
 Lohr, P. E., Churdan (Cedar Falls, Iowa) ..... Lt., U.S.N.R.

#### Grundy County

Cullison, R. M., Dike (Fort Howard, Md.) ..... Major, A.U.S.  
 Rose, J. E., Grundy Center (Des Moines, Iowa) ..... Lt. Comdr., U.S.N.R.

#### Hamilton County

Buxton, O. C., Webster City (APO 9921, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.) Major, A.U.S.  
 James, D. W., Kamrar (APO 782, New York, N. Y.) ..... Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 383, New York, N. Y.) ..... Major, A.U.S.  
 Mooney, F. P., Jewell (London, England) ..... Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Berkeley, Texas) ..... Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.) ..... Capt., A.U.S.  
 Schrader, M. A., Webster City (Topeka, Kan.) ..... 1st Lt., A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.) ..... Capt., A.U.S.

#### Hancock-Winnebag Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.) ..... Capt., A.U.S.  
 Dulmes, A. H., Klemme (APO 1778, New York, N. Y.) ..... Capt., A.U.S.  
 Eller, L. W., Kanawba (APO 302, New York, N. Y.) ..... Capt., A.U.S.  
 Irish, T. J., Forest City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Delhart, Tex.) ..... Major, A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.) ..... Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.) ..... Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.) ..... Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (Camp Grant, Ill.) ..... Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.) ..... Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.) ..... 1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.) Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.) ..... Capt., A.U.S.  
 Burbridge, G. E., Logan (APO 511, New York, N. Y.) ..... Major, A.U.S.  
 Ryne, C. W., Dunlap (APO 980, Seattle, Wash.) ..... Capt., A.U.S.  
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Tamislea, F. X., Missouri Valley (APO 5934, New York, N. Y.) ..... Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) ..... Major, A.U.S.



Dwankowski, Carl, Mt. Pleasant (APO 505, New York, N. Y.).....Capt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.).....Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (APO 17130, New York, N. Y.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.  
 Martin, J. W., Holstein (Seymour, Ind.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

#### Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.  
 Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.  
 Gittler, Ludwig, Fairfield (APO 1001, New York, N. Y.).....Lt. Col., A.U.S.  
 Graber, H. E., Fairfield Galesburg, Ill.....Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

#### Johnson County

Agnew, J. W., Iowa City (Jefferson Barracks, Mo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhous, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.  
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.  
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.  
 Crowell, E. A., Iowa City (Ft. Geo. Wright, Wash.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Camp Lejeune, N. Car.).....Lt., U.S.N.R.  
 Dörner, R. A., Iowa City (APO 534, New York, N. Y.).....Capt., A.U.S.  
 Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Emmons, M. B., Iowa City (Abilene, Texas).....Capt., A.U.S.  
 Flax, Ellis, Iowa City (APO 5833, New York, N. Y.).....1st Lt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourt, A. S., Iowa City (APO 84, New York, N. Y.).....Lt. Col., A.U.S.

Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York, N. Y.).....Major, A.U.S.  
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.  
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (APO 452, New York, N. Y.).....Capt., A.U.S.

Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.  
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.

Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Laubscher, J. H., Iowa City (Ft. Benning, Ga.).....1st Lt., A.U.S.  
 Longwell, F. H., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.

Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagyfy, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.

Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.

Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.  
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Capt., A.U.S.

Sells, R. L., Jr., Iowa City (Chico, Cal.).....Capt., A.U.S.  
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.

Stump, R. B., Iowa City (Fort Leonard Wood, Mo.).....Capt., A.U.S.  
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.  
 Trapasso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.  
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.).....Capt., A.U.S.  
 Vest, W. M., Iowa City (Fort Missoula, Mont.).....Capt., A.U.S.  
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 923, San Francisco, Cal.).....1st Lt., A.U.S.  
 Ziffren, S. E., Iowa City (Springfield, Mo.).....1st Lt., A.U.S.

#### Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.  
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.

Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.

Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.  
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.

Hendricks, A. B., Iowa City (Klamath Falls, Ore.).....Lt., U.S.N.  
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.

Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.  
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.

Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.

Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.  
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.

Keoben, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.  
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.

McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.

Moen, B. H., Iowa City  
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.

Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.

Pulliam, R. L., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.  
 Randall, C. G., Iowa City

Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.  
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.

Russell, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.

Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.

Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shapiro, S. I., Iowa City

Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.  
 Skewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.

Skouge, O. T., Iowa City  
 Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.  
 Waters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.

Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.  
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.

Willumsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.  
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.

Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.

Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

#### Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.  
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.  
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.  
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.  
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.)

#### Kossuth County

Clapsaddle, D. W., Burt (APO 519, New York, N. Y.).....Capt., A.U.S.  
 Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Williams, R. L., Lakota (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) ..... Capt., A.U.S.  
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt. A.U.S.  
 Johnstone, A. A., Keokuk (APO, Seattle, Wash.) ..... Col., A.U.S.  
 McKee, T. L., Keokuk (Miami Beach, Fla.) ..... Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.  
 Rankin, J. R., Keokuk (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) ..... Capt., A.U.S.  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) ..... Capt., A.U.S.  
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) ..... Major, A.U.S.  
 Berney, P. W., Cedar Rapids (APO 207, New York, N. Y.) ..... Capt., A.U.S.  
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.) ..... Capt., A.U.S.  
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) ..... Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) ..... A.U.S.  
 Courter, W. O., Springville (APO 464, New York, N. Y.) ..... Major, A.U.S.  
 Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) ..... Major, A.U.S.  
 Dunn, F. C., Cedar Rapids (Kearney, Nebr.) ..... Major, A.U.S.  
 Gearhart, Merriam, Springville (Phoenixville, Pa.) ..... Major, A.U.S.  
 Gerstman, Herbert, Marion (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Halpin, L. J., Cedar Rapids (Atlanta, Ga.) ..... Major, A.U.S.  
 Hecker, J. T., Cedar Rapids (Camp Polk, La.) ..... Capt., A.U.S.  
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Keith, J. J., Marion (Menlo Park, Cal.) ..... Major, A.U.S.  
 Kieck, E. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Kruckenberg, W. G., Mount Vernon (Portsmouth, Va.) ..... Lt., U.S.N.R.  
 Leedham, C. L., Springville (APO 465, New York, N. Y.) ..... Col., A.U.S.  
 Locher, R. C., Cedar Rapids (Camp Swift, Texas) ..... Major, A.U.S.  
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) ..... Capt., A.U.S.  
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) ..... Major, A.U.S.  
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) ..... Major, A.U.S.  
 Meffert, C. B., Cedar Rapids (APO 403, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) ..... Major, A.U.S.  
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) ..... 1st Lt., A.U.S.  
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) ..... Major, A.U.S.  
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Comdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (APO 5799, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) ..... Lt. Comdr., U.S.N.

**Louisia County**

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Lucas County**

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

**Lyon County**

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Major, A.U.S.  
 †Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Madison County**

Boden, H. N., Truro (Fresno, Cal.) ..... Capt., A.U.S.  
 Chesnut, P. F., Winterset (Camp Gruber, Okla.) ..... Capt., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Lt. Col., A.U.S.

**Mahaska County**

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) ..... Major, A.U.S.  
 Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Mare Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (San Diego, Cal.) Lt. Comdr., U.S.N.R.  
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) ..... Capt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) ..... Capt., A.U.S.

**Marion County**

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) ..... Major, A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Houston, Texas) ..... Capt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

**Marshall County**

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) Major, A.U.S.  
 Meyer, M. G., Marshalltown (Ft. Geo. Meade, Md.) Major, A.U.S.  
 Noonan, J. J., Marshalltown (Fort Jackson, S. Car.) ..... Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (APO 520, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Stegman, J. J., Marshalltown (APO 520, New York, N. Y.) ..... Major, A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (APO 937, Seattle, Wash.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Mills County**

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.) ..... Capt., A.U.S.  
 Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 403, New York, N. Y.) ..... Capt., A.U.S.

**Mitchell County**

Culbertson, R. A., St. Ansgar (Camp Campbell, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.  
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

**Monona County**

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... Capt., A.U.S.  
 Anderson, S. N., Onawa (Oakland, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 928, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gaukel, L. A., Onawa (Fort Riley, Kan.) ..... Capt., A.U.S.  
 †Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Lewis, Wash.) ..... Major, A.U.S.  
 Wainwright, M. T., Mapleton (APO 17508, New York, N. Y.) ..... Capt., A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

**Monroe County**

Gilliland, C. H., Albia (Quonset Point, R. I.) ..... Lt., U.S.N.R.  
 Heimann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Major, A.U.S.  
 Smith, R. A., Albia (New Cumberland, Pa.) ..... Capt., A.U.S.

**Montgomery County**

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (Denver, Colo.) ..... Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

**Muscatine County**

Ady, A. E., West Liberty (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Major, A.U.S.  
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.) ..... Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) ..... Major, A.U.S.  
 Norem, Walter, Muscatine (APO, Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (Camp Campbell, Ky.) ..... Major, A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Lt. Col., A.U.S.



**O'Brien County**

Getty, E. B., Primghar (APO 117, New York, N. Y.) ..... Capt., A.U.S.  
 Hayne, W. W., Paullina (APO 638, New York, N. Y.) ..... Capt., A.U.S.  
 Moen, S. T., Hartley (APO 689, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

**Osceola County**

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

**Page County**

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Bossingham, E. N., Clarinda (Fort Ord, Cal.) ..... Major, A.U.S.  
 Bunch, H. McK., Shenandoah (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Burdick, F. D., Shenandoah ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (Denver, Colo.) ..... Major, A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) ..... Capt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

**Palo Alto County**

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Plymouth County**

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Denver, Colo.) ..... Capt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... Capt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

**Pocahontas County**

Blair, F. L., Jr., Fonda (San Antonio, Texas) ..... Lt., U.S.N.R.  
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.  
 Patterson, A. W., Fonda (Des Moines, Iowa) ..... Capt., A.U.S.

**Polk County**

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Ft. Bragg, N. Car.) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Major, A.U.S.  
 Bates, M. T., Des Moines (Corona, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Arlington, Cal.) ..... Major, A.U.S.  
 Brown, A. W., Des Moines (APO 5934, New York, N. Y.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (Camp Barkeley, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 †Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriegsgef.-Offizierlager XXI B, Deutschland [Allemagne]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (APO 648, New York, N. Y.) ..... Capt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
 Connell, J. R., Des Moines (Phoenixville, Pa.) ..... Major, A.U.S.  
 Corn, H. H., Des Moines (St. Louis, Mo.) ..... Capt., A.U.S.  
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) ..... Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) ..... 1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Ft. Snelling, Minn.) ..... 1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 689, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas) ..... Capt., A.U.S.  
 Ellis, H. G., Des Moines (APO 16242A, San Francisco, Cal.) ..... Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas) ..... Lt. Col., A.U.S.  
 Fleck, W. L., Des Moines (Ft. Howard, Md.) ..... Lt. Col., A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Fracasse, John, Des Moines ..... 1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines  
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) ..... Major, A.U.S.  
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.) ..... Capt., A.U.S.

Goldberg, Louie, Des Moines (APO 9764, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gordon, A. M., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Gurau, H. H., Des Moines (Malden, Mo.) ..... Capt., A.U.S.  
 Haines, D. J., Des Moines (APO 708, San Francisco, Cal.) ..... Capt., A.U.S.  
 Harris, D. D., Des Moines (Gulfport, Miss.) ..... Lt. Comdr., U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.) ..... 1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 James, A. D., Des Moines (Fort Eustis, Va.) ..... Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Los Angeles, Cal.) ..... Capt., A.U.S.  
 Kelley, E. J., Des Moines (Columbus, Ohio) ..... Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.) ..... Lt. Col., A.U.S.  
 Kirch, W. A. W., Des Moines (Seattle, Wash.) ..... Lt. Comdr., U.S.N.R.  
 Klockslem, H. L., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Kotke, E. E., Des Moines (Temple, Texas) ..... Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.) ..... 1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Lederman, James, Des Moines ..... 1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (Memphis, Tenn.) ..... Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (APO 5444, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) ..... 1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.) ..... 1st Lt., A.U.S.  
 Matheson, J. H., Des Moines (San Leandro, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa) ..... Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.) ..... Major, A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines ..... 1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) ..... Major, A.U.S.  
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 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

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 Larson, M. O., Hawarden (Camp Berkeley, Texas) ..... Lt. Col., A.U.S.  
 Oelrich, A. M., Hull (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.) ..... 1st Lt., A.U.S.

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 McFarland, J. E., Ames (Seattle, Wash.) ..... Lt. Comdr., U.S.N.R.  
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 Selman, R. J., Ottumwa (El Paso, Texas) ..... Col., A.U.S.  
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Shaw, E. E., Indianola (APO 834, New Orleans, La.) ..... Capt., A.U.S.  
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 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.

(\*) Reported missing in action.  
 (†) Reported killed in action.  
 (‡) Reported prisoner of war.

## SEVENTH ANNUAL FORUM ON ALLERGY WILL MEET IN PITTSBURGH

The Seventh Annual Forum on Allergy will be held in the Hotel William Penn, Pittsburgh, Pennsylvania, on Saturday and Sunday, January 20 and 21, 1945. This is a meeting to which all reputable physicians are most welcome, and where they are offered an opportunity to bring themselves up to date in this rapidly advancing branch of medicine by two days of intensive postgraduate instruction. For instance, the twelve study groups, any two of which are open to him, are so divided that those dealing with ophthalmology and otolaryngology, pediatrics, internal medicine, dermatology and allergy run consecutively. In addition, the study groups are arranged on the basis of previous registration. In this way, as soon as the registrations are completed, the registrant is expected to write the group leader and tell him just what questions he wants brought up in the discussion. Attention is also called to the fact that during these two days almost every type of instructional method is employed—special lectures by outstanding authorities, study groups, pictures, demonstrations, symposia and panel discussions.

On Friday evening preceding the Forum, the American Association of Allergists for Mycological Investigation will hold its annual meeting at which time the results of their cooperative research on the Allergy to Fungi will be reviewed. All reputable physicians and scientists are invited to attend this interesting summarization of a year of brilliant cooperative research.

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*Treasurer*—MRS. ARTHUR E. MERKEL, Des Moines

## DUBUQUE COUNTY MEETING

The Auxiliary to the Dubuque County Medical Society held a meeting the twelfth of September at the home of the president, Mrs. H. M. Pahlas. Six members were present.

The Auxiliary's special project for the year is doing war work: Red Cross sewing, work in the surgical dressing rooms, and also to increase the number of subscriptions to *Hygeia*.

Mrs. Frederick Fuerste, Secretary

## POLK COUNTY MEETING

The Auxiliary to the Polk County Medical Society was held in Des Moines at Hotel Commodore September 29 with fifty members present.

Following luncheon, a short business meeting was held with Mrs. H. I. McPherrin, president, in the chair. New members were introduced. Committee reports were given. After the business meeting bridge was played.

Mrs. M. A. Royal, Secretary

## CHAIRMEN OF STANDING COMMITTEES

Organization: Mrs. S. S. Westly, Manly

Program: Mrs. Fred Moore, Des Moines

Legislation: Mrs. J. A. Downing, Des Moines

Press and Publicity: Mrs. K. M. Chapler, Dexter

Revisions: Mrs. C. G. Smith, Granger

Finance: Mrs. E. T. Warren, Stuart

Historian: Mrs. W. A. Seidler, Jamaica

Hygeia: Mrs. P. W. Beckman, Perry

Bulletin: Mrs. M. J. Moes, Dubuque

Nurses Loan Fund: Mrs. W. R. Hornaday, Des Moines

Defense: Mrs. A. H. Hendrickson, Sioux City

War Service: Mrs. M. C. Hennessy, Council Bluffs

## BOOK NOTES

Do you remember when friends asked you if you had read Dale Carnegie's *How to Win Friends and Influence People*? And then, one day when you were near a book counter you picked it up. We'll say it was raining that night, or you had to be nursemaid, so you stayed home with *How to Win Friends*. You probably read far into the night and thought as you read, "Why these are things I've always known, but

never really practiced. Why not use these sensible facts and get a bigger bang out of life?"

That was a few years ago. Since that book was published, the world has covered itself with blood. We all have doubled our duties, and most of us are tired all of the time, or, we think we are. Marie Beynon Ray in her *How Never to Be Tired* disproves this theory. Her book, like Carnegie's, touches a tender spot in the life of anyone who is willing to read. She contends that the average individual is emotionally tired, not physically tired. Unless one has a real organic disorder, chances are ten to one that a good night's sleep will eradicate physical fatigue.

What are the emotions that tend to stir up the "tiredness" that is still with us after a night's rest? Miss Ray names boredom, worry, sense of inferiority, fear, indecision, oversensitivity or overemotionalism, pusillanimity, and frustration. And don't get the idea that the author is reaching into thin air for these conclusions. You will find an impressive bibliography as well as a full page list of eminent psychiatrists whom she has consulted.

It is being proved daily in many walks of life that rest is no "cure-all." We need to reeducate ourselves in the following manner:

1. Substitute vitalizing emotions for the devitalizing type.
2. Acquire a better philosophy of life.
3. Remember that there is a compensation for every liability.
4. Develop new habits.
5. Learn the meaning of a balanced life—then lead one.

"Each aptitude which a person possesses and does not use is apt to be a source of restlessness; the happiest individuals are those who use every ability they possess . . . For success we must have this passionate absorption in our work; for happiness we must have it in outside activities—as many outside activities as we can conveniently pack into our lives. The more contacts we have in life, the more interested will we be in living, and the more interesting to others . . . Interesting people are people who are interested. Boreds are people who are bored."

Action breeds action. The more we function with all our powers, the longer we may expect to function and the greater will be our reserves. We must



make an effort every day of our lives to develop a balanced life through work, avocation, social life and sports. The things we do between 5:00 p. m. and 11:00 p. m. determine our personal degree of happiness. Consider only the task on hand. Tackle the next one when the time comes. Learn how to really enjoy your leisure by developing the hobby which engrosses you most.

The most forceful people we know are those who do a lion's share of balanced work and play, who seemingly never hesitate to add another task to their day's quota. If you want to add more zest to your own outlook and some good sense along with it, get *How Never to Be Tired* and read it as quickly and as carefully as possible. Then apply Miss Ray's suggestions on how to live *Two Lifetimes in One*.

Mrs. K. M. Chapler

#### SPEAKERS BUREAU RADIO SCHEDULE

WOI—Tuesdays at 1:00 p. m.

WSUI—Thursdays at 9:00 a. m.

- October 31-November 2 The Prevention of Small-pox and Diphtheria—  
Nathan B. Williams, M.D.
- November 7-9 Care of the Eyes—  
William P. Hofmann, M.D.
- November 14-16 Child Psychology—  
Adolph Soucek, M.D.
- November 21-23 The Common Cold—  
Charles E. Chenoweth, M.D.
- November 28-30 Common Skin Ailments—  
Troy W. Swallum, M.D.

#### NURSE'S AIDE\*

She smoothed a wrinkled sheet with deft, firm hands  
And gently stroked a small child's restless head.  
With deep maturity that understands,  
She brought strong confidence to each white bed.  
Her wordless look of courage was a part  
Of every service done. The cooling glass,  
The soothing bath were tasks dear to the heart  
That promised silently, "This pain will pass."

At fifty years, this was the work she chose,  
The life she loved—now, that her children grew  
Into their own adult pursuits. The close  
Of each full day brought joy—and no one knew  
How deep the longing, thwarted in the past,  
To nurse and heal—was satisfied, at last.

—Pauline Soroka Chadwell.

#### American College of Surgeons Expands Graduate Training Program

(Continued from page 471)

Surveys of hospitals for Graduate Training in Surgery have been conducted since 1937 by the College. When the war ends in Europe, in order to satisfy the demands of men whose training in surgery was interrupted by war service, together with those of current medical graduates, sufficient opportunities should be ready to offer approved training to men who wish to become surgeons, Dr. MacEachern declares, adding that a competent surgeon according to present day ideas requires a preparation of three or more years of systematic, supervised graduate training in general surgery or a surgical specialty, following a general internship and graduation from an acceptable medical school.

#### CHICAGO MEDICAL SOCIETY TO HOLD SECOND ANNUAL CLINICAL CONFERENCE

The Chicago Medical Society is holding its Second Annual Clinical Conference at the Palmer House in Chicago on February 27, 28, and March 1, 1945. The sponsoring of this annual clinical conference for physicians of the Middle West has become an important function of the Chicago Medical Society following its inauguration last spring.

Chicago is a great medical center with abundant clinical material and clinicians of national reputation. The program presented at the first conference, last spring, was enthusiastically received by the several thousand physicians who attended. The Committee is securing speakers on important subjects for the 1945 conference. Exhibits, both technical and scientific, will be greatly increased.

Further information will be given later. In the meantime, early reservations at the Palmer House, Chicago, are recommended.

#### NATIONAL COMMITTEE FOR MENTAL HYGIENE WILL HOLD ANNUAL MEETING IN NEW YORK

Dr. George S. Stevenson, Medical Director of the National Committee for Mental Hygiene, has announced that the thirty-fifth annual meeting of the Committee will be held on Wednesday, November 8, and Thursday, November 9, at the Hotel Pennsylvania in New York. Morning and afternoon sessions will be held. There will be a luncheon meeting for Mental Hygiene Societies' executives on Wednesday, and the annual luncheon of the National Committee on Thursday.

The decision to have a two-day annual meeting this year was prompted by the unusual opportunity and challenge to mental hygiene inherent in war activities, and in reconstruction and rehabilitation after the war.

Topics for the various sessions will include Mental Hygiene of Industry and Reconversion; Rehabilitation and the Returning Veteran; Race Relations and Services to the Mentally Ill Today.

\*From the October, 1944, issue of HYGEIA.

## SOCIETY PROCEEDINGS

### Black Hawk County

The October meeting of the Black Hawk County Medical Society was held in Waterloo at Black's Tea Room, Tuesday evening, October 17. Major Eugene E. Smith, M.C., Army Flight Surgeon home on leave after several months in the Southwest Pacific, and Dr. Craig D. Ellyson, former Naval Flight Surgeon recently given an honorable discharge, related interesting experiences of their military service.

M. Edward Davis, M.D., Associate Professor of Obstetrics and Gynecology at the University of Chicago School of Medicine, will be the guest speaker at the next meeting of the Society, which will be held Tuesday evening, November 21.

### Dallas-Guthrie Society

The annual meeting of the Dallas-Guthrie Medical Society was held in Panora at the Presbyterian Church Hall Thursday, October 19, at 12:30 p. m. Richard F. Birge, M.D., of Des Moines, spoke on Experience with Penicillin at the Iowa Methodist Hospital, and William R. Hornaday, M.D., of Des Moines discussed Some Difficulties in the Care of the Prostatic Patient.

S. J. Brown, M.D., Secretary

### Fayette County

The Fayette County Medical Society held its first meeting of the fall season in the Coliseum at Oelwein Monday, October 9, at 6:30 p. m. Guest speakers of the evening were Theodore J. Greteman, M.D., of the Department of Orthopedics at the State University of Iowa College of Medicine, who spoke on Diseases of the Knee and Shoulder Joints and also on Modern Treatment of Poliomyelitis, and Charles B. McIntosh, M.D., of the Department of Pediatrics at the University, who discussed The Importance of Proper Nutrition in Infancy and Childhood.

### Johnson County

The regular monthly meeting of the Johnson County Medical Society was held in Iowa City at Hotel Jefferson Wednesday, October 4, at 6:00 p. m. Following the usual business meeting Nathaniel G. Alcock, M.D., Professor of Urology at the State University of Iowa College of Medicine, gave an interesting talk on Gross Haematuria with some remarks regarding the method of presenting the subject to medical students.

R. H. Flocks, M.D., Secretary

### Linn County

A meeting of the Linn County Medical Society was held in Cedar Rapids at the Roosevelt Hotel Wednes-

day evening, September 25. The guest speaker of the evening was John R. Schenken, M.D., Professor of Pathology and Bacteriology at the Louisiana State University School of Medicine in New Orleans, who spoke on The Carcinogenic and Carcinostatic Action of Estrogenic Substances.

### Louisa County

Members of the Louisa County Medical Society and their wives met for a potluck dinner Thursday evening, October 12, at the home of Dr. and Mrs. John H. Chittum of Wapello. Clyde A. Boice, M.D., and Hervey F. Masson, M.D., of Washington, were guest speakers.

### Page County

The Page County Medical Society held its regular monthly meeting at the Municipal Hospital in Clarinda Thursday, September 28, at 6:30 p. m. Following dinner George P. Pratt, M.D., Professor of Clinical Medicine at the University of Nebraska College of Medicine, spoke on Diagnosis and Treatment of Diabetes. The letter sent out by the Subcommittee on Medical Service Plans of the State Society was carefully discussed, and unanimous approval was voted.

J. F. Aldrich, M.D., Secretary

### Poweshiek County

A meeting of the Poweshiek County Medical Society was held Tuesday evening, October 10, at the home of Dr. and Mrs. Walter B. Phillips in Montezuma. The scientific program comprised an address by Carl F. Jordan, M.D., of the State Department of Health on Postwar Diagnostic Problems.

### Scott County

The October meeting of the Scott County Medical Society was held Tuesday, October 3, at 6:00 p. m., at the Lend-A-Hand Club in Davenport. Nathaniel G. Alcock, M.D., Professor of Urology at the State University of Iowa College of Medicine, discussed Gross Haematuria.

L. J. Miltner, M.D., Secretary

### Tama County

Members of the Tama County Medical Society met Friday evening, October 6, at the American Legion Hall in Toledo. A chicken dinner was served by the Legion Auxiliary, after which the usual business meeting was held.



### Washington County

The Washington County Medical Society held its monthly meeting Thursday, September 28, at 6:30 p. m., at the Congress Hotel in Washington. Following dinner, Rubin H. Flocks, M.D., Associate Professor of Urology at the State University of Iowa College of Medicine, gave an illustrated lecture on Urologic Problems, which was very interesting and greatly appreciated by the members.

W. S. Kyle, M.D., Secretary

### Wapello County

The October meetings of the Wapello County Medical Society were held on the first and third Tuesdays of the month, October 3 and 17 respectively, at the St. Joseph Hospital in Ottumwa. Siegmund F. Singer, M.D., of Ottumwa addressed the group on Radium Treatment of Carcinoma of the Cervix at its October 3 meeting; and at the October 17 meeting Glenn C. Blome, M.D., of Ottumwa spoke on Injuries About the Shoulder Joint.

Alfred W. Adson, M.D., of Rochester, Minnesota, will be the guest speaker at the first meeting in November, which will be held at the Ottumwa Hotel Tuesday, November 7, at 6:30 p. m. Dr. Adson will discuss The Management of Chronic Recurring Sciatica Due to Protruded Intervertebral Disks. At the November 14 meeting, which will be held at St. Joseph Hospital, Harry W. Vinson, M.D., of Ottumwa will talk on Progress in Medicine.

### Upper Des Moines Medical Association

The Upper Des Moines Medical Association met Thursday, October 19, at 2:00 p. m. in Estherville, in the Gardston Hotel Club Room. The scientific program for the afternoon included talks by four prominent physicians from the State University of Iowa College of Medicine. Stuart C. Cullen, M.D., of the Department of Anesthesia spoke on Anesthesia; John W. Dulin, M.D., of the Department of Surgery discussed Fractures; Willis E. Brown, M.D., of the Department of Obstetrics and Gynecology told of The Use of Endocrines in Obstetrics; and Robert L. Jackson, M.D., of the Department of Pediatrics talked on The Rheumatic Heart. Following dinner at 6:30 p. m., Ransom D. Bernard, M.D., of Clarion, President-Elect of the State Society, discussed The New Medical Insurance Plan.

M. T. Morton, M.D., Secretary

### PERSONAL MENTION

Dr. Elmer J. Cole of Woodbine announced his retirement from the active practice of medicine the forepart of October and has closed his office. Dr. and Mrs. Cole will continue to reside in Woodbine.

Dr. Wilbur R. Miller of Iowa City, in his capacity as Professor and Head of the Department of Psychiatry at the State University of Iowa College of

Medicine, has been appointed Medical Director of the Psychopathic Hospital in that city.

Dr. William F. Boiler has recently been relieved from duty in the Army and has returned to Iowa City where he was located before entering military service in 1941. Dr. Boiler served as a Major in the Medical Corps of the Army of the United States and was stationed at Fort Leonard Wood, Missouri, before his release.

Major Daniel C. Barrett of the United States Public Health Service has taken over the duties of Medical Director of the Woodbury County Health Unit and of District No. 4 of the State Department of Health with headquarters in Sioux City. Major Barrett was located in Washington, Iowa, for a few years prior to 1942.

Dr. Melvin T. Johnson has discontinued his practice in Lake Mills and is enrolling for postgraduate work at the University of Michigan Medical School in Ann Arbor.

### MARRIAGE

Mrs. Ruth Lowell of Fort Lauderdale, Florida, and Dr. John W. Donnell of Hudson were united in marriage Sunday, October 1, in Fort Lauderdale. The couple will reside in Hudson where Dr. Donnell has been engaged in the practice of medicine.

### DEATH NOTICES

Binder, Frederick, of Corning, aged seventy, died October 17 of thrombus. He was graduated in 1911 from St. Louis University School of Medicine, and at the time of his death was a life member of the Adams County and Iowa State Medical Societies.

Byrnes, Victor Warren, of Durant, aged seventy, died October 16 following a heart attack. He was graduated in 1897 from the State University of Iowa College of Medicine, and had long been a member of the Cedar County and Iowa State Medical Societies.

Strosnider, Homer O., of Keokuk, aged sixty-seven, died September 29 following an extended illness. He was graduated in 1905 from Keokuk Medical College, College of Physicians and Surgeons, and at the time of his death was a member of the Lee County and Iowa State Medical Societies.

Youtz, Hiram LaMont, of Webster City, aged sixty-nine, died September 27 of carcinoma. He was graduated in 1905 from Johns Hopkins University School of Medicine, and at the time of his death was a member of the Hamilton County and Iowa State Medical Societies.

# HISTORY OF MEDICINE IN IOWA

*Edited by the Historical Committee*

DR. WALTER L. BIERRING, Des Moines, Chairman

DR. HENRY G. LANGWORTHY, Dubuque, *Secretary*

DR. JOHN T. MCCLINTOCK, Iowa City

DR. MURDOCH BANNISTER, Ottumwa

DR. FRANK E. SAMPSON, Creston

## Medical History of Wapello County

CLYDE A. HENRY, M.D., Farson

Part II

(Continued from last month)

### OLD-FASHIONED CLYSTERING

How many mothers of today, if ordered to give little Mary a clyster, or glyster, as the remedy was called one hundred years ago, would understand what she was to give Mary?

Let us look in upon the little Mary and her mother who lived in this country one hundred years ago. Their isolated home at the edge of the clearing is a log cabin fourteen feet square, with a puncheon floor, a clapboard roof, a door in one end, and a huge fireplace across the other. A small, square opening on either side, closed with greased paper over lattice work, lets the light in in pleasant weather. There is a wooden shutter on the outside which is closed on occasion to keep out the storm. Two large, stationary bedsteads occupy the space on either side of the door, and beneath each of them is a trundle bed which is pulled out at night for the small children, and pushed back again each morning to make room for the dining table when its various sections are assembled for the day.

It is night. Little Mary is groaning and crying. Her knees are drawn up. Her "stomach hurts" dreadfully, despite the hot plates and the horse mint tea that mother and big sister Nan have plied so long and faithfully.

"The clyster, Mother?" ventures sister Nan, wearily, at last.

"No!" screams Mary. "Don't do that to me!"

"Precisely," exclaims Mother. "And there's no use screaming, Mary, I'm going to give you a clystering."

So the hog's bladder, which at butchering time had been blown up and allowed to dry, is removed from its rafter anchorage overhead. A large quill, cut off at both ends of the barrel, is securely fastened into it. Nan prepares a large bowl of milk and water at a pleasant temperature, and the blad-

der is filled. Father, requisitioned for the control of Mary, holds her in the proper position at the edge of the bed. Mother holds a finger over the end of the greased quill until it is inserted with difficulty; then Nan, with a hand on either side of the bladder, presses long and hard to inject its contents into the bowel.

And that's how Mary got her clystering—her enema one hundred years ago.

### MEDICAL "ISSUES" OF AN EARLY DAY

How many doctors of this generation, if retrogradation of time set them adrift one hundred years ago, would be prepared to take issue with the issues prevalent in medical discussion of that day?

The issue had become a subject of controversial debate. Its strongest advocate and stoutest defender to the last ditch was the pompous old fellow of the "self-made doctor" type. He had a strong following, and justly too, for the public had long been schooled in the belief that issues were beneficial in the treatment of many diseases, acting as drains to carry off noxious and foul humors from the blood. An issue was a small sore, or ulcer, produced by artificial means, generally located as near the affected part as possible. There were three kinds of them—the seton, or cord issue; the pea, or pepper issue; and the blister issue. The cord issue was always made when a copious discharge was desired. A silk or cotton string was greased and passed through skin and flesh and left with a few inches of its length hanging out on either side. Each day this cord was pulled first to one side, and then to the other, to keep the foul humors flowing. For treating diseases of the head and eyes, these drains were placed in the back of the neck. For complaints of the chest, the wick was placed between the ribs.

To produce a pea, or pepper issue, the skin was



slit with the lancet, the wound to be large enough to admit the placement of one or more peas or grains of pepper within it. Then the edges of the wound were pinched together and dressed in such manner as to hold the foreign object in place.

The most popular of the issues was the blister issue, because it was the easiest to produce, if not the least painful to maintain. To produce the blister, an ointment containing powdered Spanish flies was applied. Then the blister was removed and dressed once a day with the Spanish fly ointment. If the drainage was too small, the strength of the ointment was increased by adding more of the powdered Spanish flies. If too great, the flow was decreased by reducing the strength of the ointment.

And so, many of the remedies, popular one hundred years ago, now not only appear ludicrous in the light of present day knowledge, but also were positively harmful, and dangerous as well.

Such were the medical standards of the times; and those rugged pioneers—many of them—served humanity well. They reckoned temperatures by the pulse; they had no clinical thermometer. They applied the ear directly to the chest; they had no stethoscope. They used medicated friction, when the stomach rebelled; they had no hypodermic needle. They based their conclusions on physical examination and bedside findings, for they had no elaborate laboratory with its x-ray apparatus, its microscope, its test tubes, its various instruments of precision. May we serve as well, and may as well be said of the rank and file of us, when standards are compared one hundred years hence!

### Part III

#### EARLY PHYSICIANS

During the first decade, that is from May 1, 1843, to May 1, 1853, Wapello County had no medical organization, although several physicians were among the earliest settlers. The first to establish a permanent residence was Dr. Charles Chunn Warden who arrived in Ottumwa on the 4th day of July, 1843. He was a young man, twenty-seven years of age, and a recent graduate of the Ohio Medical College at Cincinnati. He had practiced medicine less than a year in Greensburg, Indiana, when his health failed. He decided to quit practice and came west to recuperate. Thrilled with the beauty of the surrounding countryside, and sensing the possibilities of a bountiful future, he decided to remain, and was soon engaged in the practice of medicine.

Other competent and prominent physicians of the first decade were Dr. W. L. Orr, Dr. A. D. Wood, and Dr. Jefferson Williamson, all of Ottumwa; Dr. J. W. La Force of Old Ashland; Dr.

A. R. Weir of Agency City; Dr. A. B. Comstock of Kirkville; and Dr. A. C. Olney of Chillicothe. Dr. Elbert of Keosauqua was frequently called to do delicate surgical operations; and consultations were occasionally held with physicians who were becoming prominent in the older settlements to the east, especially from Burlington, the capitol of the territory, and Keokuk, which was soon to become the medical center of the west.

There were but two professional cards in the first issue of the *Des Moines Courier*, published at Ottumwa by W. H. Warden, a brother of Dr. Charles C. Warden, on August 8, 1848. One read as follows:

"Dr. A. T. Alt may always be found in the Ottumwa House, unless absent on professional business."

The other announcement was by Dr. Charles C. Warden, which declared his readiness to attend professional calls promptly at all times.

That patent medicines, in the earliest days, were strong contenders for the perfidious crown of wanton gullibility, is evidenced by a half column advertisement in this same first issue of the *Courier*, captioned in the following words:

"Dr. Roger's Compound Syrup of Liverwort and Tar for the Safe and Certain Cure of Consumption."

Physicians first to file claims for services in the settlement of an estate, in Wapello County, were Dr. Koontz and Dr. C. C. Warden. The estate involved was the first to be presented to the Court of Probate, and was recorded September 2, 1844, and had to do with the settlement of the estate of Thomas Crawford, deceased. Dr. J. Koontz filed a claim for "seven visits, etc." on December 19, 1844, which amounted to \$16.50. Dr. Charles C. Warden filed a claim for \$3.00 on May 15, 1845.

(To be continued)

#### ADDENDUM TO MEDICAL HISTORY OF FRANKLIN COUNTY

Dr. William R. Arthur, author of the *Medical History of Franklin County* which appeared in this section of the *Journal* from October 1942 through January 1943, has requested publication of the following item which was overlooked at the time of compilation:

Dr. Riley G. Rich was born September 13, 1864, in Fayette, Iowa, and was graduated in 1899 from the University of Illinois College of Medicine. He located in Hampton in 1899, and remained there until September 1901 when he moved to David City, Nebraska, where he is still in active practice.

# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**FEMALE ENDOCRINOLOGY**—By Jacob Hoffman, M.D., demonstrator in gynecology, Jefferson Medical College; pathologist in gynecology, Jefferson Hospital; formerly research fellow in endocrinology and director of the Endocrine Clinic, Gynecological Department, Jefferson Hospital, Philadelphia. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

**HANDBOOK OF NUTRITION**, A Symposium prepared under the auspices of the Council on Foods and Nutrition of the American Medical Association. American Medical Association, Chicago, 1943. Price, \$2.50.

**A TEXTBOOK OF PATHOLOGY**—By Robert Allan Moore, Edward Mallinckrodt professor of pathology, Washington University School of Medicine, St. Louis, Missouri. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

**VENTURES IN SCIENCE OF A COUNTRY SURGEON**—By Arthur E. Hertzler, M.D., Halstead, Kansas. Foreword by Raymond B. Allen, M.D., Dean of University of Illinois College of Medicine.

**DISEASES OF THE DIGESTIVE SYSTEM**—Edited by Sidney A. Portis, M.D., associate professor of medicine, University of Illinois Medical School (Rush); attending physician, Michael Reese Hospital; consulting physician, Cook County Hospital; consultant in medicine to the Institute of Psychoanalysis, Chicago. Second edition. Lea & Febiger, Philadelphia, 1944. Price, \$11.00.

**SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES**—By George R. Hermann, M.D., professor of medicine, University of Texas, director of the cardiovascular service, John Sealy Hospital, consultant in vascular diseases, U. S. Marine Hospital. Third edition. The C. V. Mosby Company, St. Louis, 1944. Price, \$5.00.

**THE TREATMENT OF PEPTIC ULCER**, Based Upon Ten Years' Experience at the New York Hospital—By George J. Heuer, M.D., professor of surgery, Cornell University Medical College and Surgeon-in-Chief of the New York Hospital. Assisted by Cranston Holman, M.D., assistant professor of clinical surgery, Cornell University Medical College, and William A. Cooper, assistant professor of Clinical Surgery, Cornell University Medical College. J. B. Lippincott Company, Philadelphia, 1944. Price, \$3.00.

**RADIATION AND CLIMATIC THERAPY OF CHRONIC PULMONARY DISEASES**, With Special Reference to Natural and Artificial Heliotherapy, X-ray Therapy, and Climatic Therapy of Chronic Pulmonary Diseases and All Forms of Tuberculosis—Edited by Edgar Mayer, M.D., assistant professor of clinical medicine, Cornell University Medical College, New York City; attending physician New York and Memorial Hospitals; special pulmonary consultant, New York State Department of Labor. The Williams & Wilkins Company, Baltimore, 1944. Price, \$5.00.

## BOOK REVIEWS

### ALLERGY IN PRACTICE

By Samuel M. Feinberg, M.D., associate professor of medicine and chief of the division of allergy, Northwestern University Medical School; with collaboration of Oren C. Durham, chief botanist, Abbott Laboratories. The Year Book Publishers, Inc., Chicago, 1944. Price, \$8.00.

The author has succeeded in comprising in one large volume the essentials of theory and practice of allergy. This he has done in a thorough and comprehensive manner, yet easily understandable and in a delightfully interesting style, neither too elementary nor too exhaustive to be practical.

An unusual feature of this work is the method by which the author has attempted to separate the proved from the theoretic. The former is set in ordinary type while the controversial and technical is set in smaller type. Another unusual feature is the summation at the end of each chapter setting forth the main points.

Doctor Feinberg was one of the first clinicians to observe and point out the importance of fungi as the cause of allergy. As would be expected, he has devoted considerable space to discussion of this subject. The incidence of allergy to fungi which the author has experienced is much higher than most allergists concede, yet the results seem to justify his contention.

Chapters on vasomotor rhinitis, migraine and allergic headaches, and allergy of the eye should be of particular interest to those specializing in diseases of the eye, ear, nose and throat.

J. W. Y.

### THE GASTRO-INTESTINAL TRACT A Handbook of Roentgen Diagnosis

By Fred Jenner Hodges, M.D., professor of roentgenology, University of Michigan Medical School, Ann Arbor, Michigan. The Year Book Publishers, Inc., Chicago, 1944. Price, \$5.50.

The subject of roentgenology of the gastro-intestinal tract is presented briefly and accurately.

In the preface, the author states his desire to present the subject to physicians who are not and who do not intend to become specialists in roentgenology. Nevertheless, it seems that it would be most helpful to the student of roentgenology or gastro-enterology. The introduction will be enjoyed by the roentgenologist—it agrees with his beliefs and experiences. A paragraph on the value of experience in fluoroscopy, and a warning of its dangers, is particularly well written.

The text contains numerous reproductions of radiographs of almost all lesions which may be encountered, along with their clinical histories. A short valuable chapter on healing of gastric ulcers is included. A trial of medical treatment seems to be the general rule followed. There are several illustrations of ulcers disappearing in a few weeks. The location or size of the ulcer is minimized as a factor in determining whether an ulcer might be malignant or not. Perhaps some authorities are not in perfect accord with the general ideas, but the impressions of a wide experience are reflected.

A final chapter on findings of particular interest include cases on hypertrophy of the gastric mucosa, multiple lesions and intussusception.

J. L. K.



## THE ART OF ANAESTHESIA

By Paluel J. Flagg, M.D., visiting anaesthetist to Manhattan Eye and Ear Hospital; consulting anaesthetist to St. Vincent's Hospital, New York, N. Y.; consulting anaesthetist to the Woman's Hospital, Sea View Hospital, Jamaica Hospital, Mount Vernon Hospital, Flushing Hospital, Mary Immaculate Hospital, St. Mary's Hospital, Far Rockaway, N. Y. Seventh edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$6.00.

The fact that *The Art of Anaesthesia* has just been given a seventh edition would seem to prove its popularity and worth to anesthetists and to the medical profession in general.

In the forepart of the book Dr. Flagg uses practically the same text as in earlier editions, but he has supplanted the old illustrations with up-to-the-minute photographs and drawings that add greatly to the subject matter. Here he takes up the classifications of anesthesia and describes the administrative signs of the more common anesthetics.

In Part Two the author goes into detail concerning all the factors having to do with administration, including preliminary medication, the nurse's duties both preoperatively and postoperatively, and the need for careful selection of the type of anesthetic best suited to the individual patient. While he is essentially a conservative, Dr. Flagg's discussion of the newer anesthetics and their administration is both interesting and complete.

This reviewer feels that if the student of anesthesia wants a text that will be easily read—and easily understood—and one that will give him a solid foundation to stand upon, he will want this new edition.

J. C.

## CLINICAL LECTURES ON THE GALLBLADDER AND BILE DUCTS

By Samuel Weiss, M.D., clinical professor of gastroenterology, N. Y. Polyclinic Medical School and Hospital; gastroenterologist, Jewish Memorial Hospital, N. Y.; consulting gastroenterologist, Beth David Hospital, N. Y., Long Beach Hospital, Long Island, etc. The Year Book Publishers, Inc., Chicago, 1944. Price, \$5.50.

As the title of this book indicates, it is a series of clinical lectures on the subject of the gallbladder and bile ducts. The author, a teacher in a postgraduate school, is exceptionally well fitted to write such a series of lectures and has succeeded in covering the field thoroughly. Each lecture is complete in itself, so that if the reader wishes to study a particular subject he will find it well covered in a single chapter. The lectures on cholecystitis and cholelithiasis are especially well presented.

It is a book for postgraduate students, and we should all continue to be postgraduate students.

G. M. C.

## THE MANAGEMENT OF NEUROSYPHILIS

By Bernhard Dattner, M.D., associate clinical professor of neurology, New York University Medical College; with the collaboration of Evan W. Thomas, M.D., assistant professor of medicine and assistant professor of dermatology and syphilology, New York University Medical College, and Gertrude Wexler, M.D., instructor in dermatology and syphilology, New York University Medical College, Grune & Stratton, New York, 1944. Price, \$5.50.

*The Management of Neurosyphilis* presents in Part I the technic of withdrawing spinal fluid, followed by an interpretation of the spinal fluid findings in various types of neurosyphilis. These considerations deserve greater emphasis and physicians treating patients with late syphilis would profit by a careful reading of these chapters.

Part II is properly devoted to a discussion of methods of treatment and results obtained in general paresis, taboparesis, tabes dorsalis, and meningovascular and asymptomatic neurosyphilis. The use of penicillin in neurosyphilis has not been included since data was not available regarding its use.

An extensive bibliography and adequate index follow a brief conclusion.

A. C. W.

## TEXTBOOK OF GYNECOLOGY

By Emil Novak, M.D., associate in gynecology, The Johns Hopkins Medical School; gynecologist, Bon Secours and St. Agnes Hospitals, Baltimore. Second edition. The Williams and Wilkins Company, Baltimore, 1944. Price, \$8.00.

This is the second edition of a text which discusses gynecologic problems in detail and which was written especially for the student and for use by the general practitioner. The frankness of style and the complete discussion make the volume easily readable. The completeness of discussion, however, has increased the size of the book.

The author does not deal specifically with operative technic but merely mentions it when necessary in the line of therapy. The discussion of treatment is principally from a medical angle. Diagnosis and treatment are accented, while the chapter on anatomy and methods of examination is limited to essential details. Functional disorders, especially the gynecologic endocrinopathies, are well presented. Pathologic aspects of these disorders are not over-emphasized but are augmented by the addition of numerous illustrations and microphotographs. These illustrations are a strong feature of the book. The chapter on urologic conditions of a gynecologic nature is of special interest. A complete bibliography is included.

T. F. H.

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## ANESTHESIA FOR THE WOMAN ABOUT TO DELIVER\*

EDITH E. THOMPSON, M.D., and  
STUART C. CULLEN, M.D., Iowa City†

The discussion of anesthesia for the obstetric patient is confined in this paper to a consideration of the agents and technics suitable for the relief of pain and for relaxation at actual delivery. Under ideal conditions, the anesthetist should also be concerned with the use of drugs for amnesia and analgesia during the first and second stages of labor. In most hospitals and certainly in most home deliveries, this ideal situation is as yet outside the realm of practicability and it seems wiser to restrict this dissertation to an exposition of anesthetic drugs and methods of utilitarian value at the time of delivery. Although the woman in labor presents special anesthetic problems, a rational solution of these problems can only be obtained in the majority of cases by taking into account three fundamental requirements of good anesthesia that are applicable in any situation in which good anesthesia is desired. These three fundamental requirements are (1) the safety of the patient, (2) the convenience of the surgeon, and (3) the comfort of the patient.

Safe anesthesia for the parturient woman must be also safe for the fetus. This means that no drug or technic or any combination of drugs and technics should be administered in a manner that will depress the respiratory and vasomotor centers of the mother and child or interfere with their oxygen supply. No agent or technic which either directly or indirectly embarrasses the oxygenation of mother and babe can be considered a safe anesthetic. There is an abundance of evidence to show that a reduction in the oxygen supply is deleterious. It can result in fetal distress, postnatal asphyxia, shock, and irreparable cerebral damage. An agent or technic cannot be considered safe unless there

is a wide margin between the concentration or level necessary to provide pain relief and relaxation and that which will cause serious respiratory and vasomotor depression and loss of uterine tone.

The fulfillment of the second major requirement, convenience to the obstetrician, can only be accomplished in the presence of complete understanding and cooperation between anesthetist and obstetrician. It is essential that the anesthetist be informed of the physical state of the patient and the obstetrician's intended course of action. The anesthetist can then select the agent and technic best suited for the patient and with which he can best satisfy the obstetrician. He can also anticipate the needs and desires of patient and obstetrician and adjust the anesthesia accordingly. It is hoped that from the exposition of drugs and technics that follows, the obstetrician will be able to select those that are most desirable in situations in which only untrained anesthetic personnel is available. His convenience in those predicaments will necessarily be limited.

The patient at the stage of labor under discussion is usually desirous only of obtaining relief from pain and getting the baby delivered whatever the cost to her or to the baby. It is always possible to provide complete pain relief but, unfortunately, it is as yet impossible to do this without sacrificing either safety of the mother and child or impairing the convenience of the obstetrician. Comfort of the patient must always remain a tertiary factor in the selection of anesthesia for delivery. At present and until some more completely satisfactory agent or technic is devised, it will be feasible only to temporize and provide as much analgesia as is commensurate with caution and expedience.

There are five anesthetic technics from which a choice can be made. These technics are inhalation, intravenous, regional and local, spinal, and rectal. The selection of agent and technic will necessarily be determined by the whereabouts of the patient, the proficiency of the available anesthetist, and the agents at hand. A brief discussion of these five technics follows and an attempt is

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†From the Division of Anesthesiology, Department of Surgery, State University of Iowa College of Medicine.



TABLE I. PHARMACOLOGIC ACTION OF VOLATILE AND GASEOUS DRUGS

Agent and Technic	Postanesthetic Cerebral Depression	Respiratory Center	Vasomotor Center	Effect on Oxygen Supply			Margin of Safety	Cardiac Effects	Uterine Contractions	Liver Damage	Induction	Recovery	Flammability
				Mother	Babe	Babe							
ETHER Open drop SIMPLE	Relatively short	Minimal depression	Minimal depression	None	None	None	Wide	None	Slowed; may stop	Slight; if any	Slow	Slow	Yes
VINETHENE Open drop SIMPLE	Short	Minimal depression	Minimal depression	None	None	None	Wide	None	None	If anes. over 30 min.	Rapid	Rapid	Yes
ETHYL CHLORIDE Open drop SIMPLE	Short	Depressed	Depressed	None	None	None	Narrow	Irritability increased. myocardium. Reduced output.	None	Can occur	Rapid	Rapid	Yes
CHLOROFORM Open drop SIMPLE	Short	Depressed	Depressed	None	None	None	Narrow	Irritability increased. Myocardium directly depressed. Ventricular fibrillation; death.	Depressed	Frequent	Rapid	Rapid	No
CYCLOPROPANE Closed COMPLICATED	Relatively short	Depressed in deep anesthesia	None	None	Arterial blood decreased 20%	None	Moderate	Arrhythmia common. Ventricular fibrillation occurs. Do not use epinephrine.	Abolished in third plane	None	Rapid	Rapid	Yes
ETHYLENE-80% Semi-closed COMPLICATED	Short	None	None	None	None	None	Wide	None	None	None	Fairly rapid, analgesia only without ether added.	Rapid	Yes
NITROUS OXIDE-80% Semi-closed COMPLICATED	Short	None	None	None	None	None	Wide	None	None	None	Slow, analgesia only without ether added.	Rapid	No; if ether added, yes.

TABLE II. PHARMACOLOGIC ACTION OF THE BARBITURATES—GIVEN INTRAVENOUSLY

Agent and Technic	Postanesthetic Cerebral Depression	Respiratory Center	Vasomotor Center	Effect on Oxygen Supply			Margin of Safety	Cardiac Effect	Uterine Contractions	Toxic Effects	Induction	Recovery	Dangers	Flammability	Limitations
				Mother	Babe	Babe									
SODIUM PENTOTHAL EVAPAL 2.5% Intravenous COMPLICATED	Relatively short	Depressed. Pulmonary edema with over dosage or prolonged anesthesia	Depressed by large doses	Maximal	Maximal	Maximal	Narrow	Tachycardia, depressed myocardium with large doses.	Decreased with large doses	None if no overdosage	Rapid	Fairly rapid	Laryngospasm	No	Basal narcotic only.

TABLE III. PHARMACOLOGIC ACTION OF DRUGS USED IN LOCAL INFILTRATION, FIELD BLOCK, CAUDAL BLOCK, AND SPINAL ANESTHESIA

Agent	Technic	Postanesthetic Cerebral Depression	Respiratory & Vasomotor Centers	Effect on Oxygen Supply			Cardiac Effect	Uterine Contractions	Toxic Effects	Flammability	Dangers	Complications	Limitations
				Mother	Babe	Babe							
PROCAINE .5-1% or METYCAINE 1.5%	Field Block Infiltration SIMPLE	None	None	None	None	Relatively wide	None	None	Infrequent	No	Acc. I. V. injection of drug with respiratory and vasomotor collapse.		Local action only. No relief from labor pains. Time limited.
PROCAINE 1% or METYCAINE 1.5%	Podendal Block SIMPLE	None	None	None	None	Relatively wide	None	None	Infrequent	No	Acc. I. V. injection of drug with respiratory and vasomotor collapse.		Local action only. No relief from labor pains. Time limited.
PROCAINE 1-2% or METYCAINE 1.5%	Caudal Block COMPLICATED	None	None	None	None	Relatively wide	None	None	Frequent	No	Acc. I. V. or intrathecal injection of drug with respiratory and vasomotor collapse.	Anatomic disproportions, deformities and septa in sacral canal. Increased length of labor.	Regional action. No relief from labor pains. Time limited.
PROCAINE 1-2% or METYCAINE 1.5%	Continuous Caudal COMPLICATED	None	None	Decr. only if level of anes. above D.5	Decr. only if level of anes. above D.5	Narrow	None	????	Frequent	No	Acc. I. V. or intrathecal injection of drug with respiratory and vasomotor depression if anes. rises to levels above D.5.	As above plus broken needles, sheared catheters, osteomyelitis of sacrum, meningitis, infections at site of puncture. Increased tone of some uteri with ischemia and fetal distress.	Regional action. May fail to rise high enough. Otherwise no limitations.
PROCAINE 5-10% or 3% for Continuous Spinal	Spinal COMPLICATED	None	None	Decr. only if level of anes. above D.5	Decr. only if level of anes. above D.5	Narrow	None	Minimal decrease	None	No	Marked respiratory and vasomotor depression if anes. rises to levels above D.5.		None unless have failure to reach desired level.

made to outline their pertinent advantages and disadvantages.

Inhalation anesthesia has the advantages of ease of administration, flexibility of level of depression, adaptability to numerous agents with different properties, rapid elimination, unlimited action, and cooperation of the patient can be retained or abolished depending on the level of the anesthesia. The principal disadvantage of the inhalation technic is the fact that the drugs used with it enter the maternal blood stream and ultimately that of the baby. Depression of the fetus is in direct proportion to the concentration in the mother and the length of the anesthesia. This disadvantage can be overcome somewhat by employing rapid acting agents which are quickly eliminated by mother and infant. Contrary to popular impression, inhalation anesthesia, when well administered, is not contraindicated in patients with upper respiratory or pulmonary disease. There is no controlled evidence to support this well established myth.

Anesthesia induced by the administration of barbiturates intravenously is pleasant for the patient, rapid in onset, and non-explosive. It is not easy to administer properly, however, because two individuals are usually required, one to administer the drug and one to control the airway. Of the two, the latter is more important. The level of anesthesia is not readily controlled, it is adaptable to only a few agents, and the elimination of the drug used is dependent on the ability of the liver to detoxify it and the kidney to excrete it. The drug is present in the maternal blood stream and consequently capable of causing fetal depression. Cooperation of the mother is not possible.

Local infiltration of the perineum or pudendal nerve block will provide perineal anesthesia and relaxation. Unless there is sufficient absorption of the agent to cause a reaction in the mother, there is no interference with the baby by this technic. Cooperation of the mother is retained. It does not relieve the pain associated with uterine contraction. Single injection caudal anesthesia will also give perineal anesthesia and relaxation and may also give some relief from contraction pain. In the absence of toxic maternal blood levels of the agent, there is no depression of the baby.

Single injection caudal anesthesia must be properly timed in relation to the progress of labor to be effective at the termination of the second stage. It is claimed by some obstetricians that the complete relaxation of the pelvic floor associated with caudal anesthesia predisposes to incomplete rotation of the baby's head and a high incidence of posterior and transverse presentations. Others claim that this relaxation facilitates rotation. If the caudal anesthetic level is high enough to mini-

mize or abolish labor pain, it may also result in sufficient relaxation of the abdominal muscles to impair the ability of the mother to assist in the expulsion of the fetus, necessitating the use of forceps. There is also evidence that with high levels of anesthesia there are alterations in uterine tone.<sup>1</sup>

Continuous caudal anesthesia possesses the same advantages and disadvantages that are listed for single injection caudal anesthesia. One can, however, usually insure complete relief from labor pains if it is desired. The disadvantages of continuous caudal anesthesia seem, on the basis of experience and reports in the literature, to be associated with the attempts on the part of the enthusiasts to extend the use of this technic beyond the limits of rationality. Maternal and fetal mortality rates are high,<sup>2</sup> undesirable neurologic sequelae are not infrequent, and peripheral circulatory depression often occurs. Most of these unwanted results occur in patients in which the anesthesia is high and prolonged. Other complications are infections at the site of puncture with subsequent osteomyelitis or meningitis,<sup>3</sup> broken needles and sheared off catheters requiring surgical removal, and accidental intrathecal injection. Its use is limited to hospital practice.

Spinal anesthesia is easily administered, causes minimal interference with the baby, gives complete perineal and labor pain relief, and does not depress uterine contraction except in unnecessarily high levels. It has the disadvantage of being limited in length of action and must be administered at the proper time to effect pain relief for the delivery of the baby. There may be maternal vasomotor and respiratory depression sufficient to produce fetal depression. There is abdominal muscle relaxation which limits the ability of the mother to assist in the termination of the second stage. It is also likely to cause undesirable postanesthetic, neurologic sequelae, and its use is limited to hospital practice.

The rectal technic is chiefly advantageous for amnesia and analgesia in the early stages of labor and rarely is satisfactory for anesthesia for the delivery without complementation with some other technic.

There are numerous agents that can be used with these various technics which have been mentioned. In the interests of simplicity and to avoid monotonous repetition, the pharmacologic properties of these drugs have been listed in tabular form in Tables 1, 2, and 3. A study of the actions of these drugs should assist one in the selection of an agent and technic or combination of agents and technics that is adaptable to the particular situation with which he is confronted. Table 1 lists the agents used for inhalation anes-



thetia, Table 2 lists the agents employed in intravenous anesthesia, and Table 3 lists the agents in common use for infiltration, block, and spinal anesthesia. Table 3 also includes some of the complications, disadvantages, and limitations of these latter technics.

As an example of how these tables might be used to advantage in actual practice, assume the case of a woman about to deliver in the home. The woman is a cardiac case on the verge of decompensation and has auricular fibrillation. The only anesthetist available is the husband. Perusal of Table 1 shows that ethyl chloride, chloroform, cyclopropane, ethylene, and nitrous oxide are not usable in this situation because of their cardiac effects or because of the mode of administration. Vinethene and ether, however, have no cardiac effects, have wide margins of safety, and are simple to administer. The agents listed in Table 2 are unsuitable because the technic is not simple enough to be entrusted to the available anesthetist. Table 3 indicates that local infiltration or pudendal nerve block would provide perineal anesthesia and not affect the cardiac status of the mother. One possible solution, then, of this particular problem would be the use of vinethene or ether for the complete or partial relief of the labor pain and local perineal infiltration or pudendal nerve block for perineal pain relief and relaxation. The husband could, with relative safety under direction, give analgesia by inhalation and the obstetrician could do the blocking.

This essay has dealt chiefly with the agents and technics available for anesthesia for delivery and has cited advantages and disadvantages for each. It is hoped that this inordinate emphasis on the tools of anesthesia has not made you lose sight of the primary importance of the individual using those tools. In anesthesia, as in obstetrics, the best results will be obtained by the best trained individual and by his ability to adapt these tools to any particular situation. A good forceps and a strong pair of arms do not make a good obstetrician, and a good gas machine and a potent gas do not make a good anesthetist. The object of this paper will have been accomplished if good anesthesia for the woman about to deliver can be provided under less than ideal conditions.

#### REFERENCES

1. Hingson, R. A., and Edwards, W. B.: Continuous caudal analgesia in obstetrics. *Jour. Am. Med. Assn.*, cxxi:225-229 (January 23) 1943.
2. McCormick, C. O., Huber, C. P., Spahr, J. F., and Gillespie, C. F.: An experience with one hundred cases of continuous caudal anesthesia. *Am. Jour. Obst. & Gynec.*, xlvii:297-311 (March) 1944.
3. Gready, T. G., Jr.: Some complications of caudal anesthesia and their management. *Jour. Am. Med. Assn.*, cxxiii:671-675 (November 13) 1943.

## THE PATHOGENESIS OF CONGESTIVE HEART FAILURE\*

BENJAMIN F. WOLVERTON, M.D., Cedar Rapids

When heart disease becomes established as a result of the application of any etiologic factor capable of causing it, the normal physiology of the circulation is replaced by an abnormal one, the type and degree depending on the etiologic factor involved and the degree of disease produced. The conditions which obtain thereafter constitute the pathogenesis of congestive heart failure, if they are sufficient in degree and duration. The length of time required for the appearance of congestive failure varies from seconds, as in the case of acute cor pulmonale, to many years, as in the case of the milder grades of rheumatic heart disease.

The "back-pressure" theory of the development of congestive heart failure or backward failure of the circulation is probably best typified by the series of changes which occur as a result of "pure" mitral stenosis. The barrier offered by the stenosed valve causes an increase in the pressure in the left auricle, which in turn leads to, first, dilatation and then hypertrophy of that chamber. An early rise in pulmonary venous pressure must occur since the flow from the pulmonary veins determines the pressure in the left auricle and must exceed it. Inevitably the pressure is increased in the pulmonary capillaries and arteries, increasing the force required by the right ventricle to empty itself, and it, in its turn, dilates and hypertrophies. From this point on, these changes increase quantitatively as determined by the degree of stenosis of the mitral aperture and the total demand imposed on the heart by the individual. At this stage, the patient may be perfectly comfortable at rest, but is short of breath on relatively slight exertion, coughs with the production of sputum tinged by altered or fresh blood, or may have frank hemoptysis. The vital capacity is reduced and the arm-to-tongue circulation time is prolonged. Ultimately, when the right ventricle dilates enough to cause the tricuspid valve to become functionally incompetent, the pressure rises in the systemic veins, the liver becomes engorged, and, in combination with other factors, dependent edema appears. If the mitral valve is incompetent as well as stenosed, the failure of delivery of blood to the systemic arteries and the back-pressure into the left auricle are increased, thus intensifying the circulatory fault. If the mitral stenosis is complicated by aortic insufficiency, the regurgitant flow into the left ventricle imposes a severe strain on

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that chamber in two ways; first, it subtracts from the output of the previous systole; second, it re-enters the ventricle propelled by the high aortic pressure during diastole when the left ventricular muscle has a minimum of tone and is forced to dilate. This leads to the rapid development of dilatation and hypertrophy with their mechanical and chemical disadvantages concomitantly with that going on in the right ventricle as a result of the mitral stenosis. When the tricuspid valve is stenosed and/or incompetent, the systemic venous pressure rises at once, leading to the appearance of hepatic engorgement, dependent edema, and ascites much earlier than is the case with mitral disease alone. The presence of aortic stenosis, by reducing the mean blood pressure, also reduces coronary flow, thus interfering with the nutrition of and oxygen delivery to the entire heart.

Aortic insufficiency, as it occurs as a result of syphilis, is much more serious than the rheumatic type since the regurgitation is not accompanied by any stenotic element, and is steadily progressive once it is well developed. In the rheumatic type a blood pressure such as 180/0 is infrequently seen, whereas it is the rule, sooner or later, in the syphilitic type. Furthermore, in the luetic lesion, the ostia of the coronary arteries are contracted by the cicatricial changes in the proximal aorta, reducing the coronary flow regardless of the patency and, frequently, integrity of the remainder of the coronary arteries. The decrease in coronary flow is especially unfortunate in that the left ventricular muscle is already at such a disadvantage because of the aortic regurgitation.

Hypertension imposes a load first on the left ventricle by forcing it to raise the intraventricular pressure to a point well above the elevated diastolic pressure in order to propel its contents into the aorta against it. This leads to hypertrophy at a rate and to a degree conditioned by the severity of the hypertension. When it can no longer continue to enlarge, dilatation supervenes, the output falls, the mitral valve becomes relatively incompetent, the pulmonary blood pressure rises, and, eventually, the right heart participates in the sequence of hypertrophy, dilatation, and reduced output.

Although there are many unsettled problems in connection with coronary artery disease, angina pectoris, coronary thrombosis, and myocardial infarction, so much has been said and written on the subject in recent years that it will be dealt with briefly here. Suffice it to say that relative myocardial ischemia due to restricted flow through the sclerosed and narrowed coronary arteries is responsible for the syndrome of angina pectoris.

Since the development of coronary narrowing is usually more marked in one or more branches than in the others, one or more localized areas of muscle suffer from relative ischemia while the surrounding areas still enjoy a comparatively normal blood supply. It is this difference in oxygen delivery to adjacent areas that probably determines the symptom of angina of effort. At a certain level of physical activity the oxygen requirement of the heart muscle exceeds that delivered to the most ischemic area; continued activity beyond that point results in anginal pain. As soon as the oxygen requirement of the most ischemic area is less than the amount delivered, after the exertion ceases, the pain disappears.

As the process of coronary sclerosis extends to involve more branches and the more proximal segments, larger portions of the ventricular walls suffer from varying degrees of ischemia, particularly of the left ventricle. When the degenerative myocardial changes, in the aggregate, are sufficient to reduce significantly the expulsive power of the left ventricle, as compared with that of the right, the symptom of shortness of breath appears. The weakened left ventricle is unable to propel the blood into the systemic arteries as fast as the relatively stronger right ventricle forces it into the pulmonary circuit. The resultant pulmonary congestion reduces the vital capacity of the lungs, and activates reflexes which carry impulses to the medulla and cerebral cortex by way of afferent vagus fibers arising in the lungs and about the great veins entering the heart. These reflexes give rise to labored breathing and subjective dyspnea. When the difference between the relative strength of the two ventricles is sufficiently marked, pulmonary congestion may be continuous and increasing, particularly if the patient remains active, and congestive failure is established unless and until reversed by treatment. At this stage the clinical picture is that of left ventricular failure, characterized by pulmonary congestion without increase in systemic venous pressure. When mild, the only manifestations may be those of easy dyspnea, a few râles at the lung bases, and an increase in intensity of the pulmonic second sound as compared with its previous intensity. Even if hypertension has been present and the aortic second sound has been much louder than the pulmonic, as left-sided failure sets in the pulmonic second sound approaches the aortic in intensity and finally exceeds it, thus providing a striking objective indication of left ventricular weakening. As the disproportion increases, the dyspnea is more easily produced or becomes continuous, the basal râles increase, cough appears, and sputum is raised which is first brownish and later blood tinged. The



systemic blood pressure falls, chiefly at the expense of the pulse pressure, and, if the delivery of blood to the medulla is sufficiently reduced, Cheyne-Stokes respiration may develop.

When, as a result of sclerosis of the coronary branches supplying the right ventricle, parallel to but usually less marked than those of the left, and the resistance offered by the pulmonary congestion, right ventricular failure sets in just as in the case of mitral stenosis, and the systemic venous pressure rises, leading to congestion of the liver, dependent edema, and ascites. When right-sided failure sets in, after a period of left-sided failure, the strength of the two ventricles tends to become equalized, thus relieving the pulmonary congestion and causing a lessening of dyspnea while the congestive failure in terms of the whole heart is increasing. If, under treatment, the right heart failure can be overcome, the symptoms of left-sided failure may again become more prominent.

At any time during the course of left ventricular failure, especially when due to coronary and hypertensive heart disease, paroxysmal nocturnal dyspnea or cardiac asthma may appear. It results from an acute, severe disproportion between the strength of the two ventricles, causing a rapid increase in pulmonary congestion which may proceed to the stage of acute pulmonary edema and death. All the factors involved are not understood, but the supine position tends to increase the pulmonary congestion already present. Whether sleep is also a factor is not clear. The center of mass of the lungs, in the dorsal position, is well below the left auricle, especially that of the right lung. Thus, the force of gravity on the blood in the pulmonary vessels tends to hold it in the lungs and slows its entrance into the left heart and its expulsion into the systemic arteries. All the factors involved in diurnal left heart failure also are operative, and the total effect is to waken the patient suddenly, usually between 11:00 p. m. and 5:00 a. m., forcing him to a sitting position, leaning slightly forward, arms away from his sides, so as to place the center of mass of his lungs higher than his left auricle. This position alone in mild attacks may relieve the pulmonary congestion enough to terminate the attack, while the more severe attacks require treatment.

Myocardial infarction is an accident in the course of coronary artery disease which, besides causing acute forward failure of the circulation probably by several mechanisms, hastens backward failure by destroying the contractility of the heart muscle included in the infarct, blocking the conduction system, and precipitating arrhythmias. The early appearance of pulmonary congestion after infarction of the left ventricle indicates the

acute weakness of that chamber. Occasionally, perforation of an infarct of the interventricular septum adds another handicap.

In hyperthyroid heart disease the entire heart is forced to overact both in force and rate. The failing hyperthyroid heart, therefore, gives a different clinical picture because the two ventricles share equally the cardiac effects of the disease. This is true also of myxedema heart and diphtheritic and other types of acute and subacute myocarditis.

The effect of tachycardia in the precipitation of congestive heart failure seems to have been underemphasized. Although the Bainbridge reflex causes an increase in cardiac output, it is a temporary advantage only; in the long run, other factors being equal, tachycardia causes cardiac fatigue by increasing the time occupied by systole at the expense of diastole. Measurements of ventricular systole and diastole at rates from 60 to 180, while only approximate at the higher rates, show that the percentage of time occupied by systole increases from 40 per cent at a rate of 60 to 80 per cent or more at a rate of 180, while diastole decreases from 60 per cent to about 20 per cent, or less. Also, whenever tachycardia is not accompanied by a corresponding increase in pulse pressure, coronary flow decreases. Thus, it is a common clinical experience to see congestive failure precipitated by the advent of any type of tachycardia. Even normal hearts show congestive failure after paroxysmal tachycardias of long duration. In hypertensive heart disease, congestive failure may be anticipated earlier in patients with a consistent rate of 90 or more as compared with those showing normal rates. It is significant that, in general, the cases of congestive failure which show the greatest benefit from the use of digitalis are those in which the heart rate is lowered by the drug.

The effect of cardiac arrhythmias in the pathogenesis of congestive failure cannot be separated entirely from that of tachycardia, since the most important arrhythmias may also be rapid. Premature beats of whatever origin seem to be of little importance unless they are so frequent that the cardiac output is reduced. However, they are important in that they may be the precursor of other, more serious arrhythmias. Auricular, nodal, and ventricular tachycardias rapidly precipitate congestive failure in hearts already diseased and, if long continued, may do so in sound hearts. Auricular fibrillation and flutter combine the effects of tachycardia and an inefficient, wasteful mechanism. In the former, the pulse deficit present at the higher rates bespeaks the futility of many of the ventricular beats; the heart expends

energy out of proportion to the work accomplished. The lesser grades of auriculoventricular block have little or no effect in producing congestive failure; complete heart block, although the stroke output is greatly increased, probably has little influence in causing failure, since it may be present for more than twenty years in cases without high-grade valvular or myocardial disease. Its greater importance lies in its association with ventricular standstill and the Adams-Stokes syndrome. Ventricular fibrillation, if more than transient, causes cardiac syncope and total forward failure and death.

Anoxemia, or more properly hypoxemia, with any type of heart disease is of extreme importance in leading to congestive failure. If the oxygen delivered to the heart muscle is reduced either by reduced coronary flow or diminished pulmonary ventilation, myocardial fatigue is greatly increased and congestive failure hastened.

Edema is both a result and cause of heart failure. Time does not permit detailed consideration of all the factors involved in edema formation. In heart disease the increased venous pressure exerted on the venous end of the capillaries is the most important, and this together with the factors of colloid osmotic pressure, salt concentration, tissue fluid pressure, mechanical and osmotic, capillary permeability, and lymph flow determine the development of edema. Edema, once present, increases the work of the heart by mechanical resistance to arterial, capillary and venous flow, and reduces vital capacity by accumulation in the serous cavities. Edema of the heart muscle interferes with oxygen absorption by the cells and probably offers a mechanical disadvantage in myocardial contraction. Pulmonary edema reduces vital capacity and oxygenation of the blood.

Cardiac enlargement is due to the combined effect of dilatation and hypertrophy. Dilatation, the first result of increased work, is at first advantageous because the decreased thickness and increased surface of the muscle fibers increase oxygen absorption. Later, dilatation is a disadvantage since a dilated heart requires more oxygen to do a given amount of work. Hypertrophy or thickening of the muscle fibers allows a stronger contraction, but this advantage is later offset by the greater time required by oxygen diffusion through the thicker fibers. Thus, cardiac enlargement eventually becomes a factor in leading to congestive failure.

#### CONCLUSION

The tendency, in all types of heart disease, is toward congestive failure. The more important

factors leading to congestive failure in the common etiologic types of heart disease and in heart disease in general have been discussed.

### DERMATITIS MEDICAMENTOSA FROM THE INTRAVAGINAL USE OF FLORAQUIN

L. EDWARD GAUL, M.D., Dubuque

Dermatitis medicamentosa due to absorption of drugs from the vaginal mucosa is not common. Becker and Obermayer<sup>1</sup> cited mercury (bichloride) and arsenic (acetarsone).

The active chemical in floraquin is diodoquin (5-7-diiodo-8-hydroxyquinoline). It contains 63.9 per cent iodine. It has been distributed for about ten years, but there have been no reports<sup>2</sup> of toxicity following its use either orally or vaginally.

#### CASE REPORT

D. W., a white, married woman thirty-nine years of age, was seen June 13, 1944. She complained of a dermatitis of two months' duration, which involved the lower extremities. The lesions appeared as erythematous macules about the size of a glass pinhead; after several days they became nodose, having a bright red halo. The mature lesion measured 2 centimeters. The oldest lesions showed peripheral scaling, while centrally there was an adherent crust. They were not painful or pruritic.

The past history was relevant. On December 29, 1943, a hysterectomy had been performed. At this time an adenoma was found in the right lobe of the thyroid gland. On April 25 a vaginal smear was positive for *Trichomonas vaginalis*. Floraquin medication was started immediately. The patient was advised to insert one tablet into the vagina morning and night. Within a few days the first lesion was noted and others soon followed, reaching the stage of evolution already described. On June 21 biopsy specimen from a lesion in the right popliteal space showed a hematogenous toxic dermatitis with much edema in the upper corium and epidermis. These findings suggested a drug eruption.

Medication was stopped June 26 and the lesions cleared in four to five days. Patch tests with the ingredients in floraquin were performed. All were negative after forty-eight hours. On July 17 the patient was asked to use floraquin again. After four days the lesions reappeared and were indistinguishable clinically from the presenting dermatitis. Epidermal scratch tests were done August 2 with the ingredients in floraquin, and these also were negative.

(Continued on page 498)



# STATE DEPARTMENT OF HEALTH

*Walter L. Diering*

## WINNING THE WAR AGAINST TUBERCULOSIS

L. H. FLANCHER, M.D., M.P.H.

Director, Division of Tuberculosis Control  
Iowa State Department of Health

Another year has passed and again we approach the Christmas season with nations still at war, but with a brighter outlook for a glorious Victory with Peace on Earth, Good Will toward Man, than was the outlook a year ago.

On this side of the ocean, in our country, we are also waging a war against an insidious and deadly disease, with ever brightening hopes of success. Much has been accomplished but much still remains to be done before the disease known as tuberculosis is eradicated from our state and country. In spite of the handicaps caused by the war in obtaining needed personnel and equipment, the campaign has gone forward.

A new system for reporting and tabulating tuberculosis has been installed, giving us a clearer picture of the problem in our state, and allowing us to map our program in such a manner as to concentrate our efforts where most needed.

Increased miniature film programs have been held in industries in various large centers. High school miniature films have been carried on successfully with several counties receiving this service for the second time within three years. An exceptionally large number of x-ray conferences in the various counties have been completed, due to the employing of school nurses during the vacation period.

The federal government, through the United States Public Health Service, has given new ammunition to this fight against tuberculosis, in the law which was recently enacted, giving ten million dollars to aid the various states where most needed. This is to be used in training additional personnel, and to purchase needed equipment to carry on the work. We hope to receive substantial aid from this source.

We have one means at our command, however, where we the people can contribute our share to this great work, "The Christmas Seal," the colorful little stamp which is now on sale throughout

this great land of ours. Without the help of the funds derived from its sale, the work which is now being carried on in our state would be impossible.

We wish to thank the doctors for their wholehearted support of the entire tuberculosis program; the hundreds of Christmas seal workers who have so unselfishly given their time and support to the program as carried on by the Iowa Tuberculosis Association; the State Department of Health; the various County Tuberculosis Associations, and all other organizations and departments which have helped us during the past year.

Let us continue *Our* war, so that when our beloved ones return from the grim struggle overseas, we may indeed have Peace on Earth, Good Will toward Man.

## PENICILLIN IN ACUTE LOBAR PNEUMONIA

A recent article by Tillett, Cambier and McCormack<sup>1</sup> reports successful treatment of lobar pneumonia with the use of penicillin. In a series of 45 cases, all but seven of which were found to be caused by specific types of pneumococcus, three deaths occurred, a mortality rate of 6.5 per cent. Number and distribution of pneumococcus types, dosage of penicillin, and outcome of treatment are shown in the following table:

TABLE I  
Acute Lobar Pneumonia Treated with Penicillin

Type	Cases	Average Dosage	Result	Recovery	Indef.	Died
I	11	148,000	10			1
II	6	113,000	6			
III	1	140,000	1			
IV	1	110,000	1			
V	5	115,000	4		1	
VII	2	105,000	2			1
VIII	4	90,000	3			
IX-XXIX	8	93,000	6		1	1
Unclass.	7	100,000	5		2	
Total	45	105,000	38		4	3 (6.5%)

## BLOOD CULTURE FINDINGS

In the series of 45 cases presented in Table I, 14 of the patients were found to have a pneumococcus bacteremia, while 31 yielded negative blood cultures. "Bacteremia disappeared in every instance following injections of penicillin."

## EFFECTS AND DURATION OF TREATMENT

Tillett and associates state that penicillin was highly effective in 39 of the 45 cases (84 per cent of the total group). They observed a rapid drop in temperature and symptomatic improvement, usually within 12 to 20 hours. Resolution took place in shorter time than with sulfonamide therapy. The leukocyte count seemed to be unaffected. Use of penicillin was not attended by toxic reactions. The drug was administered as a rule during a period of three to four days, or longer if indicated.

## METHOD OF ADMINISTRATION AND DOSAGE OF PENICILLIN

1. Moderately Severe Infection: Intramuscular injection of penicillin is recommended for the moderately severe case of acute lobar pneumonia caused by the pneumococcus. The amount is 10,000 units, given every 3 hours until 4 doses have been administered, or 40,000 units during 12 hours of the first day. The same treatment is repeated for three or four days and longer when indicated.

2. Seriously Ill, or with Bacteremia: Intravenous use of penicillin is considered best, especially for the first few injections, with dosage increase to 25,000 units. The procedure is outlined as follows:

1st day, 25,000 Units (i.v.), every 3 hours—2 doses, then 10,000 Units (i.m.), every 3 hours—2 doses.

2nd, 3rd, 4th days, 10,000 Units every 3 hours—4 doses daily.

## COMPARISON OF PENICILLIN WITH SULFADIAZINE

The experience of the above workers with these chemotherapeutic agents is summarized as follows:

1. Penicillin produces no toxic manifestations, with the exception of a mild urticaria which is sometimes noted.

2. Penicillin is indicated for the patient who is sensitive to or shows toxic effects from sulfadiazine.

3. Penicillin is considered effective against pneumococci that are found to be sulfonamide-fast.

4. Penicillin has been observed to bring about sterilization of the blood strain more rapidly than is accomplished by sulfadiazine.

## REFERENCE

1. Tillett, William S., Cambier, Margaret J., and McCormack, James E.: Treatment of lobar pneumonia and pneumococcal empyema with penicillin. Bull. New York Acad. Med., xx:142-178 (March) 1944.

## FIRST CASE OF PSITTACOSIS REPORTED IN IOWA

On May 29, 1944, a boy fifteen years of age, resident of Tama County, was bitten by a parrot while giving the bird a shower bath. The injury on the hand healed without infection. On June 10 the boy started coughing, the cough being severe but non-productive. A week later vomiting and diarrhea developed, along with fever. The boy had been under treatment for diabetes for about four years and had been a patient at University Hospital. The attending physician, Dr. A. J. Wentzien of Tama, suspected the possibility of psittacosis and the boy was admitted to the hospital.

At University Hospital, the patient was examined by Dr. J. Howard Laubscher, who forwarded a blood specimen to Dr. K. F. Meyer, Director, The Medical Center, The George Williams Hooper Foundation, San Francisco, California. The blood serum was reported by Dr. Meyer as showing a strongly positive complement fixation test for psittacosis, confirming the clinical diagnosis of this disease.

Diagnosis and probable source of infection in this, the first case of psittacosis to be officially notified in Iowa, were further confirmed by demonstration in the California Laboratory of the virus of psittacosis in the liver and spleen of the parrot concerned.

A report of this case by Laubscher and associates will appear in the scientific section of a future issue of the JOURNAL.

## PREVALENCE OF DISEASE

Disease	Oct. '44	Sept. '44	Oct. '43	Most Cases
				Reported From:
Diphtheria .....	9	11	14	Page, Polk
Scarlet Fever .....	137	66	245	For the State
Typhoid Fever .....	1	20	6	Webster
Smallpox .....	0	1	1	
Measles .....	10	5	35	Black Hawk, Woodbury
Whooping Cough...	42	30	105	Dubuque
Brucellosis .....	19	32	50	Cerro Gordo, Clinton
Chickenpox .....	51	8	119	Webster, Black Hawk
German Measles...	2	4	1	Des Moines, Dubuque
Influenza .....	0	0	0	
Malaria .....	31	21	3	Clinton
Meningitis .....	8	2	4	Black Hawk
Mumps .....	78	39	48	Sac, Johnson, Dubuque
Pneumonia .....	5	9	26	Black Hawk, Clinton
Poliomyelitis .....	60	60	43	Polk, Linn
Tuberculosis .....	66	58	33	For the State
Gonorrhea .....	231	250	161	For the State
Syphilis .....	121	121	215	For the State

## SPEAKERS BUREAU RADIO SCHEDULE

WOI—Tuesdays at 1:00 p. m.

WSUI—Thursdays at 9:00 a. m.

December 5- 7 Tuberculosis

J. Carl Painter, M.D.

December 12-14 Scarlet Fever

Raymond J. Brink, M.D.

December 19-21 Nephritis

Gerald V. Caughlan, M.D.

December 26-28 Medical Progress in Recent Years

Harold J. Roddy, M.D.



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HOUSE OF DELEGATES APPROVES MEDICAL  
SERVICE PLAN FOR IOWA

At its special meeting in Des Moines on November 1, the House of Delegates of the Iowa State Medical Society unanimously approved the development of a medical service program for Iowa. The session began its deliberations at ten o'clock in the morning and concluded at approximately three in the afternoon. During that time opening remarks were made by Dr. Charles T. Maxwell, Chairman of the Medical Economics Committee, who was followed by Dr. Martin I. Olsen, Chairman of the subcommittee charged with the responsibility of investigating and bringing forth the basic outline of a possible program. Dr. Olsen reviewed in detail the work of his committee and discussed at length the difficulties and problems attending medical service programs. Experiences of other states in this field were freely cited. When the whole matter had been laid before the delegates, the pros and cons were debated in true democratic fashion. Every delegate who cared to was given full opportunity to express his mind. Chief opposition came from physicians whose practices are in rural communities situated at some distances from hospitals. The justices of their complaints, the JOURNAL feels sure, were recognized by all the delegates present, and unquestionably remedial measures in this direction will be one of the major phases constantly under consideration as the plan unfolds. But in spite of the fact that the plan in its early stages of development favors urban physicians, the majority of delegates expressing opinions stressed the importance of a start being made, partially as an answer to the threat of government dominated pro-

grams but more especially as a means of relieving the low income groups from the hazards incurred by unexpected major illnesses.

The delegates were appreciative of the presence of Dr. Andrew S. Brunk of Detroit, President of the Michigan State Medical Society, who was able to give much valuable information concerning Michigan's pioneering experiences in the field of medical service plans, and of Mr. Thomas A. Hendricks of Indianapolis, Executive Secretary of the Indiana State Medical Society, which, we understand, is considering a plan of its own.

As outlined by the committee, the Iowa plan will have the following essential features:

1. A combination service and indemnity plan. All unmarried subscribers with an annual income of less than \$1,500 or a married subscriber whose annual income from all sources, including members of his family, is less than \$2,500 will receive full coverage according to the terms of the contract. Those subscribers whose incomes are in excess of the amounts stated above, or those who request "private" accommodations, will receive a cash indemnity and will arrange with their physician for the payment of balances.
2. Services eligible for payment under the plan will be surgical, obstetric, medical care for hospitalized illnesses of more than three days' duration up to and including twenty-one days in any one contract year, and diagnostic x-ray services.
3. Subscribers' contracts will be single, covering only one eligible person, or family, covering husband and/or wife and unmarried child or children between the ages of 90 days and 19 years.
4. Individual subscriber's rate will be \$1.00 per month; the family rate will be \$3.25 per month.
5. Iowa Medical Service will be a legal, non-profit corporation under the laws of Iowa, the affairs of which will be administered by a Board of Directors of from fifteen to twenty-five members, two-thirds of whom shall be physicians holding a contract with the corporation to render medical or surgical service.

Preliminary problems facing the committee, which must be gotten out of the way before the plan can actually start operating, include passage of an enabling act by the State Legislature. This task will be in the capable hands of Dr. Billingsley's Legislative Committee. Next, a fee schedule must be fixed. The committee requested the House of Delegates to instruct the speaker to appoint a special committee consisting of representatives of the various specialty branches to deal with this phase. Finally, the whole plan must be reviewed by and receive the approval of State governmental officials, notably the Commissioner of Insurance.

Obviously, therefore, much important and painstaking work remains to be done before the plan starts functioning, but it must be remembered that many months of preliminary effort have already been spent so that what remains to be done, now that the House of Delegates has given the "go ahead" signal, can be directly to the point and on a more or less charted course.

The JOURNAL believes the Iowa State Medical Society, by its action, has taken a forward-looking step and has demonstrated to the citizens of Iowa its desire and willingness to assume leadership in meeting one of the pressing medicoeconomic problems of the day. No matter what form the eventual evolutionary course of medical practice assumes, the physicians of Iowa should find themselves in a more favorable situation by this evidence on their part of a determination to place service to needy groups before individual considerations.

#### CONGENITAL MALFORMATIONS RESULTING FROM RUBELLA EARLY IN PREGNANCY

In recent months considerable discussion has appeared in the literature regarding certain events concerning mothers during their pregnancies which one way or another have an effect upon their offspring. One of these of great interest, to which we shall refer in a later editorial, is the Boston study upon maternal diet and its relation to prematurity. Another is an experimental study upon the maternal diet of the rat deficient in certain vitamin components which result with surprising uniformity in congenital malformations such as harelip, cleft palate, and syndactylism. Another of these, which is the subject of this editorial, concerns recent reports which show that rubella, or German measles, early in pregnancy causes congenital malformation of the eyes and heart.

Dr. Carl A. Erickson of Pasadena, California, reports upon 11 such cases in the October 1944 issue of *The Journal of Pediatrics*. Nine of the 11 infants had congenital heart defects which were interpreted as being most probably patent inter-ventricular septal defects. Also, 6 of the babies had bilateral cataracts, 2 left cataracts with microphthalmia, 1 a right microphthalmia, and 1 a right corneal opacity with microphthalmia. All of the mothers had rubella sometime during the first month of their pregnancy. Dr. Erickson states that Gregg in 1941 reported a series of 78 cases of congenital cataract, 44 of them also having congenital heart disease, occurring in infants whose mothers, with few exceptions, had had rubella in the early months of pregnancy. He also refers to the article of Swan and co-workers who reported a total of 49 cases of rubella in all stages of pregnancy, of which 25 occurred during the first two months. Every one of the 25 early cases showed congenital defects in the infant, but in the third month only 50 per cent showed defects. Beyond the third month the number decreased rapidly; only two mothers out of 16 in this group had infants showing defects.

Erickson rightly stresses the practical problems which arise out of this new knowledge. It would seem far better that girls especially should have rubella in childhood than to be shielded from possible exposure; and again, mothers who have not had rubella but are exposed to the disease in their early months of pregnancy might well be given convalescent serum. The report is of great interest and importance and undoubtedly will lead to an investigation of the possible effect of other maternal disturbances occurring in the early months of pregnancy and their relation to the infant's physical and mental normality.

#### POSTWAR HOSPITAL EXPANSION LIKELY

Unquestionably in the immediate postwar period one of the major activities with which the country will be faced will be the construction of many new hospitals and the replacement or remodeling of many old ones. In addition, there is talk of health centers, diagnostic centers, institutions for the care of the aged, hospitals for the mentally ill, and hospitals for the tuberculous. One of the main arguments presented in favor of new hospitals and health and diagnostic centers is the establishment of these facilities especially in rural areas so that the people and their physicians in these communities may have facilities in keeping with the modern advances in medical science.

The whole question is well presented in an article by Dr. Vane M. Hoge, Senior Surgeon, Hospital Section, State Relations Division of the United States Public Health Service, published in the June 1944 issue of *Modern Hospital*. Dr. Hoge believes that such a hospital construction program is far from being a daydream. It has been in operation in Maine for several years and has demonstrated its success in other areas. He stresses the fact that it is important now that states and local communities undertake advanced planning so that when the time comes a well prepared, well worked-out program will have been developed. He states that the specifications of our postwar hospital construction blueprint call for:

"1. A state health planning committee representing the hospitals, the medical profession, the public health services, the architectural profession and such representatives of the general public as may be deemed necessary.

"2. Based on a comprehensive survey, a program of hospital and health center construction and improvement, to the end that all parts of the state shall be adequately served.

"3. An estimate of the total capital cost and the probable allocation of costs.



"4. Plans whereby the standards of small hospitals can be maintained through service connections with larger institutions.

"5. A state agency to administer grants-in-aid and other federal programs concerned with hospitals and to carry out the program of the state planning committee.

"6. A state advisory council with representation similar to that of the planning committee to assist the state agency in carrying out its program."

It is our understanding that some such beginning has already been made here in Iowa. The JOURNAL will be alert to keep its readers informed of any developments in this direction.

### BUY CHRISTMAS SEALS

The bright beauty and ministering grace of Christmas Seals again call to us. For thirty-seven years they have heralded at this season the ever-advancing crusade to control, prevent and ultimately destroy tuberculosis. Dollars contributed by those who buy Christmas Seals have done much to carry forward this work in our community, a work that goes on continuously day



after day and with an efficiency that equals its human-heartedness.

But let no one imagine the war against tuberculosis has been won. Today over 600 persons are in our Iowa tuberculosis sanatoria. Last year 380 Iowans were killed by the disease, a loss of one life for each day in the year. About 3,550 persons in the state have the disease, and many of them will not discover it until too late.

The cheery Seal bearing the red Double-Barred Cross still has vital work to do.

Buy Christmas Seals today! Place a Seal on your every piece of Christmas mail. This crusade against tuberculosis is YOUR crusade against a public enemy. This enemy can and may strike at the dearest object of your love and devotion. Money you spend for Christmas Seals is evidence of your zeal and interest in stamping out this enemy of public health.

### DERMATITIS MEDICAMENTOSA FROM THE INTRAVAGINAL USE OF FLORAQUIN

(Continued from page 493)

#### COMMENT

The mode of absorption of floraquin from the vagina is obscure in this case. It is not known if the entire compound was absorbed or only a part. The nodose appearance of the dermatitis does suggest that the iodine portion of the compound was absorbed. It is possible the thyroid adenoma may have conditioned the response. In addition, the hysterectomy and its effect on the vaginal reaction should not be overlooked.

#### REFERENCES

1. Becker, S. W., and Obermayer, M. E.: *Modern Dermatology and syphilology*. J. B. Lippincott Company, Philadelphia, 1940.
2. Personal communication from R. S. Kemp, M.D., Medical Director, G. D. Searle & Company.

### ANNUAL CONFERENCE OF SECRETARIES AND EDITORS

The annual conference of secretaries and editors, held in Chicago November 17 and 18, attracted a large number of persons by the well chosen program. Due to lack of space, a complete report of the conference cannot be carried in this issue of the JOURNAL but will appear in the January issue. We are sorry not to be able to print it at once, but federal regulations on the use of paper are most restrictive, and the JOURNAL cannot be expanded at will as material is available, but must live within its paper allowance.

A report of the special meeting of the House of Delegates was given preference over other reports, which we believe will be in accord with your wishes.

### ANNUAL CLINICAL CONFERENCE OF CHICAGO MEDICAL SOCIETY

The Chicago Medical Society will hold its Second Annual Clinical Conference at the Palmer House in Chicago on February 27, 28, and March 1, 1945. Make your hotel reservations now.

### ALLERGY MEETING IN PITTSBURGH

The Seventh Annual Forum on Allergy will be held in the Hotel William Penn, Pittsburgh, Pennsylvania, Saturday and Sunday, January 20 and 21, 1945.

# Transactions of the House of Delegates

## Iowa State Medical Society, Special Meeting

### November 1, 1944

#### Wednesday Morning Session

The first session of the Special Meeting of the House of Delegates of the Iowa State Medical Society, held at the Kirkwood Hotel, Des Moines, Iowa, November 1, 1944, convened at ten o'clock, Dr. R. D. Bernard, President-Elect, presiding.

The meeting was called to order by the Chairman and the secretary announced that roll call would be by signed attendance card, and that a quorum was present. Following is a list of those in attendance:

#### Delegates

Allamakee	J. W. Thornton
Appanoose	E. A. Larsen
Black Hawk	E. E. Magee
Boone	A. B. Deering
Buchanan	F. F. Agnew
Carroll	O. P. Morganthaler
Cherokee	C. F. Obermann
Clarke	C. R. Harken
Clinton	R. F. Luse
Dallas-Guthrie	S. J. Brown
Dickinson	T. L. Ward
Dubuque	J. C. Painter
Emmet	M. T. Morton
Fayette	C. C. Hall
Fremont	Kenneth Murchison
Hancock-Winnebag	C. O. Brewster
Harrison	H. N. Anderson
Henry	S. W. Huston
Jefferson	J. S. Gaumer
Johnson	J. W. Dulin
Kossuth	W. F. Hamstreet
Linn	T. F. Suchomel
Madison	I. K. Sayre
Marion	E. C. McClure
Marshall	A. D. Woods
Mills	D. W. Harman
O'Brien	W. R. Brock
Polk	R. C. Doolittle
Polk	W. E. Baker
Polk	L. F. Hill
Polk	H. W. Dahl
Polk	C. W. Losh
Pottawattamie	G. V. Caughlan
Ringgold	E. J. Watson
Sac	J. R. Dewey
Tama	G. T. McDowall
Taylor	J. H. Gasson
Van Buren	L. A. Coffin
Wapello	C. A. Henry
Washington	W. L. Alcorn
Webster	T. J. Dorsey
Winneshek	E. F. Hagen
Woodbury	R. N. Larimer
Woodbury	C. T. Maxwell

#### Alternates

Buena Vista	H. E. Farnsworth
Calhoun	P. W. Van Metre
Cerro Gordo	H. W. Morgan
Davis	C. H. Cronk
Greene	J. M. Jackson
Hardin	F. N. Cole
Humboldt	C. A. Newman
Iowa	H. G. Moershel
Jasper	J. W. Billingsley
Johnson	P. A. Reed
Johnson	W. R. Miller
Keokuk	D. L. Grothaus
Muscatine	C. P. Phillips
Page	J. F. Aldrich
Union	C. C. Rambo
Wright	E. D. Tompkins

#### State Society Officers

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President-Elect	R. D. Bernard
Vice President	Fred L. Knowles
Vice President	Edward W. Anderson

Secretary	Robert L. Parker
Treasurer	James A. Downing
Trustee	Oliver J. Fay
Trustee	John I. Marker
Trustee	W. A. Sternberg
Councilor	L. L. Carr
Councilor	C. H. Cretzmeyer
Councilor	J. B. Knipe
Councilor	J. E. Reeder
Councilor	E. F. Beeh
Councilor	J. C. Hill
Councilor	H. A. Householder
Councilor	C. A. Boice
Councilor	R. C. Gutch
Councilor	J. G. Macrae
Delegate	T. F. Thornton
Delegate	A. Burcham

#### Committee Members

Martin I. Olsen	J. A. Thorson	Fred Sternagel
H. E. Stroy	I. N. Crow	L. R. Woodward

The Speaker: This special meeting of the House of Delegates is called following a resolution and a motion which were adopted April 21, whereby the House authorized the appointment of a special committee to prepare plans for a prepayment medical care program and report back to the House within four months. Later the House by written vote extended the time given the committee to prepare its report. The object of the meeting today is to hear, to discuss, and to act upon the report of this special committee.

I should like first to introduce the members of the committee. Dr. Thorson. Dr. Thorson is a Dubuque physician, a specialist in eye, ear, nose and throat. He is a member of the Committee on Medical Service and Public Relations, and he was selected from that committee.

Dr. Stroy. I think I can honor him by calling him a general practitioner, and he represents the Medical Economics Committee.

Dr. Olsen of Des Moines happens to have been a member of both committees and has had a lifetime of experience in the insurance business. I wish to emphasize this because it is rather unusual for a planning board to have as a member a physician who has spent a great many years in the insurance business itself. I think as far as I know it is the only planning committee that has had a man of this type on it.

We should now like to introduce to you doctors from other states, which I am sure Dr. Olsen will be glad to do.

Dr. Olsen: In the study we found it necessary to make, we naturally had to go to the sources where we could get information, and the first source that you would think of in connection with any service plan would be Michigan. Those doctors have had oceans of experience, good and bad—good now I am glad to say; bad formerly. It was my pleasure to be a guest of the Michigan State Medical Society recently, and at that time I met our guest today, the President of the State Society of Michigan, Dr. Brunk. Dr. Brunk, by the way, is intimately connected with both the hospital and the medical service plan there, and is in a position to answer almost any question that can arise in your minds. I hope that you will feel free and that he will survive the day as you ask him questions on the working of their plan.

I should also like to present at this time Mr. Tom Hendricks, Executive Secretary of the Indiana State Medical Society. The Indiana plan is not yet in operation, but it is in the making and the doctors are going through exactly the same thing that we are at this time. I also attended their state meeting recently, and I had the privilege of sitting with the committees that are preparing their plan and had the pleasure of listening to the discussion in their House of Delegates and in their Executive Council. I deem it a great privilege to have both of these men with us



today, and I am sure they will contribute something to our deliberations.

The Speaker: I also wish to announce that we have a representative of the press with us.

I should like to hear from Dr. Hennessy.

President Hennessy: Members of the House of Delegates: I want to reiterate what Dr. Bernard said about the formation of this committee and about the work the members have done. They have given a great deal of their time, and I think we were fortunate in having a man of Dr. Olsen's experience in insurance to act as their chairman. I think this is a proposition to which the House of Delegates should give its best consideration, not just for us but for the men who are in service and the oncoming generations in medicine, because this is going to be, if it is adopted, a very distinct change in the customary procedure of the practice of medicine. I sincerely hope that everyone will express his opinion, that he will feel free to express his own opinion or objections as he sees it. I thank you.

The Speaker: I think perhaps Dr. Maxwell, Chairman of the Medical Economics Committee has a word to say.

Dr. Maxwell: Mr. Chairman, as Dr. Bernard has said, this proposition was referred jointly to the Medical Service and Public Relations Committee and the Medical Economics Committee. Dr. Olsen is a member of both committees, and we are particularly fortunate in having a man with the insurance experience of Dr. Olsen at the head of that committee. If he does not know the answers, he is probably the best qualified man to know who does know them. As has been said, he has attended the meetings of Michigan and Indiana.

Michigan has learned a lot in the insurance field the hard way, by starting in from scratch and making a number of mistakes and correcting them, so that it is now operating on a satisfactory basis. My understanding of the Michigan plan is that it attempted in the beginning to cover too much, to cover all the fields of medicine and it did not work. The Michigan doctors were kind enough to give us the benefit of their experience, their bitter as well as their good.

Following the formulation of the preliminary plans, we have had two meetings of both committees, one on September 10 and one on October 15, here in Des Moines. These were all-day sessions. We went over the various clauses in the contracts, the articles of incorporation, physician's application, and the by-laws of the organization, so that the plan which is being introduced covers a lot of study by a lot of men. After all, gentlemen, this is not the ideal plan—this whole plan. This is something that was referred to the committee by the House of Delegates, and in presenting this study it is not something the committee has to sell to you. It is something you gentlemen referred to the committee for study and report. I am not going into the details of the plan. You have it before you, and have had it for study. You will find many things that do not fit your particular field, but after all we have to look at it from a common sense viewpoint, because it is in a way an answer to the problem of federalized medicine.

In a way any insurance plan regiments us, but in regimenting ourselves to a limited degree we hope to overcome the threat of somebody outside of the profession regimenting us. In many instances these plans will have to be changed. In the first place, the first question before this body is to decide whether they want a plan and the principles on which they want it, and after that decision, the plan has to meet the approval of the Insurance Commissioner of the State of Iowa. Probably the first consideration in any insurance plan is that it be actuarially sound; that is, it must be able to give the benefits that are planned for the premium that is charged. If the premium is too high it is not safe; if the premium is too low it is not actuarially sound. In the end, those factors have to be decided before any plan is put into effect by the Insurance Commissioner.

Perhaps the wording of the plan will have to be changed before it is put into effect, and probably we shall find after it has been in effect that there are certain fields which can be broadened. But we have to start in with a plan that comes as near meeting the requirements as can be done with a premium that is salable. I think we should keep these general principles in mind and not the specific wording of the

clauses. They have been rewritten several times and certain of them will probably have to be rewritten again before they are actually put into effect.

We have not as yet passed an enabling act. We hope to do this in this coming session of the Legislature.

Dr. Olsen will discuss more in detail the various features and the reasons for their inclusion.

The Speaker: As chairman of the second committee that was instrumental in producing this subcommittee, I simply wish to add to Dr. Maxwell's remarks that for the first time the State Medical Society is going into business. It is going into a business with which a very high percentage of the men are unfamiliar. We have sent various reports to you in the hope that you would familiarize yourselves with the details of the plan which the committee feels it can recommend to you. Dr. Olsen, in the next hour, I hope, will go into minute detail, on a rather broad basis, concerning the whole picture. I think it is only fair before we discuss this that the picture of insurance as applied to medicine be given consideration, the type of demand for insurance, to give a better background perhaps than you have picked up from your Journal or perhaps from the information which the committee has sent to you.

I think if you will listen carefully to Dr. Olsen you will find the answers to a great many of your questions. I know that the questions which I have been asked since I came here are probably 50 per cent answered in Dr. Olsen's talk. That will eliminate at least 50 per cent of the arguments during the rest of the session. We need discussion of this and we shall take it up as soon as Dr. Olsen finishes his dissertation.

Dr. Olsen: Mr. Speaker, President Hennessy, Members of the House of Delegates and Guests: I do not know that I am overly pleased to have you over-emphasize my connection with life insurance. I maintain and insist that I am just a practitioner of medicine as you are. I am essentially a clinician, and I have tried in the work I have done in connection with this committee to view it from the clinician's viewpoint. I hope I have been successful in that. I surely am not taking it from the point of view of a large insurance company.

The problem before us, I believe, is a serious one. I think Dr. Hennessy referred to it in saying that this is a real departure; the establishing of any insurance plan for the payment of fees for illness is a very real departure, and there should be an actual need for it if we enter into such a plan. Dr. Maxwell referred to the threat which is over us. I believe it is a real threat, not an imagined one at all. The Wagner Act, the federalized act, will probably not pass in its present form, but it is likely to be followed by others of a similar nature and probably more subtle than it.

Not being able to accomplish this objective by federal legislation, states have begun to make inroads. Michigan has a constitutional amendment pending which goes as far as the Wagner-Murray-Dingell Bill. I understand that eight other states have legislation pending along this same line. Not being able to accomplish it as a whole, they are trying to obtain it by states. We have the recent resolutions of the American Public Health meeting where resolutions were adopted that are exceedingly far-reaching in their effect, assuming that they might be carried through. The EMIC program follows this same line. I understand that requests have been made for a promise that this will be discontinued as soon as the war is over. You are not getting any assurance that it is for the duration only. It probably will carry on. Don't forget the large labor organizations that definitely want something of this sort. They are almost as effective as governmental bodies in getting what they want.

A large number of our people in the services are obtaining complete medical service now. It is inconceivable that they will not want to see an extension and a continuation of it after they get home. That is the human reaction to a thing of that sort. A large proportion of our profession is now on a salary basis. You may be sure that it appeals to many of them.

I have here a speech that was made by John R. Little before the recent meeting of the State Society of California. In speaking about legislation, he says,

"In Washington the Murray-Wagner-Dingell Bill lies in committee. As we said before, it probably will lie there, but as Mr. Fulton Lewis has pointed out, there will be other Murrys and other Wagners and other Dingells who will bring forth other bills, more subtly drawn, to place control of medicine in bureaucratic hands. You should remember that there is no vote-getting device so efficient as the one which, posing as purely humanitarian, offers the people something they do not have but want very much and believe they can get in no other way."

And he makes this further statement which might, in a way, be reassuring to us, but the fact that they want it does not necessarily mean they are going to federalize the practice of medicine and we may really have a voice in it. I thought it might be worth while quoting the following from his statement: "If there is one thing I must do here this afternoon, it is to convince you of one vital truism. You must simply get the thought completely out of your minds that federal medicine can be imposed by anyone, by a pressure group like organized labor, by politicians, or by any administration, Republican or Democrat. Many of you fail to understand that the government is only a means by which the people get what they want when they cannot get it in any other way."

He goes on in this way: "Please get this straight. The people do not want federal medicine. They only want what they have been told will result from federal medicine." I hope you get that. They want what they have been told they will get from federal medicine. "The pressure groups and the politicians cannot enact federal medicine without the clear will of the people. These are not just words. This is the crystal truth as understood by any 16-year-old political science student. If the people, for example, thought that a monarchy would serve them better than a republican form of government, not all the pressure groups and all the politicians could prevent it. What the people want they will ultimately get. The people want everyone to have the benefits of scientific medicine at a cost the lower income groups can afford without financial catastrophe."

I hope you get that statement as to what the people want. "They want the benefits of scientific medicine at a cost the lower income groups can afford without financial catastrophe." I suggest you rid your minds completely of any consideration of politicians, pressure groups and administration; that you think only of what instrument you can supply which will supply the people's wants, an instrument which will be superior to anything the politicians can offer.

So much for Mr. Little. I think you are all familiar with the two surveys that have recently been made in the states of California and Michigan. Both of them indicate a real desire and a need for security as to illness. I do not think there is any question about that. The people want security. The questionnaire was so worded as to bring out whether they would prefer voluntary prepayment plans, organized and controlled by physicians, or government controlled plans. The vote was definitely in favor of our type of setup where we administer and control the plan. Remember, however, that if we do not satisfy them the chances are they will get it in another form. They will get the security that they feel they urgently need.

As I stated a while ago, in our study of this question we have secured the plans, complete, of all the existing prepayment plans, or of practically all of them. We have studied them from many angles, the organization and its management, the subscriber contracts and the benefits they offer, the premium rates, the fee schedules, and finally, and probably most important of all, the experience they had financially and otherwise. It was because of this, also, that your committee found it desirable to contact states like Michigan and to obtain firsthand from them the experience they had. They have had an enormous experience in that state.

The material is still not well organized. I think anyone can go to the Detroit office and obtain much valuable information. However, a lot of money will have to be expended in getting this material set out on cards where it can be broken down into smaller and homogeneous groups. I think Michigan has been very free in giving its experience. I think they are also fair in their position when they state that it

should be the province of organized medicine, the American Medical Association probably, to undertake the complete study of the material which is available. I think this should be done before too long so that we all may benefit from it.

You made reference to my experience with insurance. That is completely different from this. Life insurance has a century or more of experience behind it. It is so definite that you can predict from year to year, with very small variations, just what the mortality and other factors are going to be. It has been an evolutionary thing. This type of insurance has existed for four or five years only. You may take available data, as Michigan did. They spent some years in analyzing data of various kinds before they began to operate their plan, but you all know what happened even after such a study. It is so interesting; I think you will bear with me, Dr. Brunk, if I show what happened to you during the first year. Here is what Michigan tried to cover in its first subscriber benefits: Medical and surgical care by doctors of medicine of their own choice, including home, office and hospital visits, a complete field of medicine really. Second, consultation service and special medical services, such as x-ray, laboratory and anesthesia service performed by doctors of medicine. Absolutely no limitation. They went all the way apparently. Third, here they were conservative as regards obstetrics. They waited until the membership had existed for twelve months before assuming any liability under it. Fourth, medical services necessary to establish a diagnosis for tuberculosis, venereal disease, cancer, and nervous and mental conditions. I think that probably later on Dr. Brunk will be able to enlighten us further as to how they tried to get their experience. To me it was very interesting.

For these benefits they charged the individual subscriber \$2.00 per month, husband and wife \$3.50 and the family \$4.50. Probably the charge should have been at least \$8.00 or \$10.00 a month for those benefits, and I don't know that that would have been sufficient.

You see, we lack an evolutionary background here, and because of that we are going to have to be conservative. Well, from our study, I think that we can safely draw the following conclusions: (1) That the experience to date is too short and too limited as to numbers to serve as an accurate guide; (2) that the benefits must be strictly limited in character and scope if we are to remain solvent under any such plan; and (3) that we must accept subscribers on a group basis only, our groups must be well selected and we must take a very large proportion of the groups if we are to have an experience that is satisfactory.

The surveys which have been made show that medical service is inadequate in certain localities. The rich receive all they need. They can pay for it and we need pay no attention to them in the formation of a plan. The poor, the indigent, the unemployed, the unemployables—we cannot single-handedly take care of them if we will, and no plan yet devised has aimed to do that. The group in need of our service and the ones for whom we must build it are the people who fall within the low or the moderate income groups. I believe we must have that distinctly in our thinking in the formation of any plan.

As Dr. Maxwell said, we have had two sessions of the two larger committees, of which this committee is a subsidiary, and in the last session particularly we had a reasonable meeting of minds. The recommendations that come today and that are contained in the plan submitted to you are the recommendations of this committee. As I recall, there were no dissenting voices. Some may have had reservations, but they were not expressed, and in the final analysis every member got behind it to a man, as we must do if we as a group adopt the plan.

Our proposal is for a combined service and indemnity plan. By that I mean that to the people in the low income group, whom we have in mind in the formation of this plan, we must offer service, not indemnity but complete service, within the scope of the contract that we give them, which, of course, is limited. For those with larger incomes the plan will serve as an indemnity. We will pay in line with the fee schedule and that will simply be a credit on account. Your total fee will be one which you will arrange with your patient as you do now. The only exception to that in the low income groups are the people who demand



private rooms, special nurses, etc. We propose that those people may be treated as are the people of larger means. You may arrange for what you think the fee should be and again the fee schedule will simply serve as a guide to the amount of indemnity.

Of course, you understand that the physician has to take a rap. He has to underwrite this plan in the event that we do not have enough money in the till for any accounting period. Then the fee schedule which ordinarily we hope to pay will simply have to be scaled down according to the money available. It will be prorated equally, though, for the accounting period.

Now as to the benefits we propose to grant. Again, this is only a suggestion. I hope you understand we are not coming here with something cut and dried which you must accept. That is not the attitude with which we come. I believe your committee is thoroughly sold on the plan we propose. I don't think we would have proposed it otherwise, but I want to reiterate that these are suggestions. Maybe we should not cover what we are asking for here, but we think it is desirable that we go to the extent I am indicating now: That we take care of all hospitalized surgery; that we take care of hospitalized medical cases after three days of hospitalization and for a period of twenty-one days; and that we take care of obstetric cases after nine months.

Here I should add that our subscriber's contracts that were mailed to you left out a rather important provision, that in communities where a hospital may not be available for the patient, we are going to permit the payment of obstetric fees to a limited extent. I cannot tell you the extent yet, outside of hospitals. The difficulty is that Iowa is largely a rural state. We have areas where there are no hospitals, and no one recognizes more clearly than we do the limitations of any plan that we can possibly propose. It does not take care of the general practitioner of medicine as we should like to take care of him and as ultimately it must do. That must be our objective as our reserve grows. As we grow strong we must enlarge on these benefits so as to include a greater and greater number of our people and the profession much more generally than is done now. I don't believe there is any basis, though, on which we can deal with office and home calls at the present time. The experience has been altogether contrary to that. You will remember the benefits that I read as obtaining in Michigan when they started. Under that plan within a couple of years they lost over half a million dollars. They have since worked it out by curtailing their enrollment and by modifying the benefits, limiting them very strictly, charging more adequate rates, and so on, so that now they are perfectly solvent. They know where they are going. I think now they are set up as a very good guide for us, and I speak of that again just to indicate that we are very definitely limited in what we can offer, possibly because of human characteristics. Office and home calls are conditions you cannot control. There is no basis of dealing with them now, but that must be our ultimate objective.

I said all hospitalized surgery. We also aim to take care of emergency surgery for a period of twenty-four hours after an accident has occurred where it is impossible to get to a hospital. Diagnostic x-ray will be covered up to \$15.00 per individual or \$30.00 for a family under a family contract.

This fee schedule is likely to be most controversial. I should like to tell you just how we arrived at what we have. We took the fee schedule that was in effect about ten years ago, I think, and set out the corresponding fees in Michigan and California. Then we asked for suggestions. I think we sent the form to probably sixty men over the state. About half of them replied. The fees we have listed for general surgery, for instance, represent the averages obtained from the figures returned by the profession. I do not think the schedule is the opinion of any particular member of the committee, nor do I think that it should be the final answer. Your committee has pondered on how best to arrive at a fair fee and I should like at this time to recommend for our committee that the Speaker of the House appoint a special committee to determine what a fair fee schedule would be for the plan finally adopted, and that the personnel of the committee should consist of a surgeon, a gynecologist, an internist, a pediatrician, an orthopedist, a

urologist, a roentgenologist, a pathologist, an eye, ear, nose and throat man, and a general practitioner. Everybody should be represented. A fee schedule arrived at in that way should be our final answer. I do not know how else to go about it. Any fee schedule that we may adopt to begin with will be subject to revision from time to time. In talking with Dr. Brunk this morning I learned that revisions are being contemplated there, and you must expect changes to be made here as conditions arise which make them desirable and necessary.

In our organizational setup we hope to have a medical officer in addition to a good business manager. Probably to begin with he will put in part time only. We hope to have a medical advisory committee. We hope to have one general medical advisory committee and to have medical advisory committees in the various counties, so that the men in practice can keep in much closer touch with the home organization on this matter of fees and can reflect their views through their own committees.

The criticism on the proposed schedule runs about as follows: The fees are too high by about 20 or 25 per cent. There is an inequity between surgical and medical fees. Of course, to that I would say that we are going to have to accept fees as they exist at the present time. We cannot make any change in your dealings with your patients and the charges that you make as a general practitioner, as an internist, or as a surgeon. These are existing fees and the inequalities must be worked out by yourself. I think in any plan we formulate you are going to have to recognize that these differences do exist, that certain men are being paid less than they should be paid in relation to others, but I do not believe there is any possible basis on which we could work that out in connection with the plan.

There are two theories in the establishment of a fee schedule. You may have it high. If you have it too high, you will have to have your fee prorated downward, a certain percentage of it paid for each accounting period. That is likely to occur much more often, of course, if you have a high schedule. It is not too desirable to have to prorate it too frequently and too regularly. I noticed in a study of the California plan that they started out with a unit basis of \$2.50 and they said an appendectomy was worth forty units. That was \$100. Their first payments were 44 per cent of that unit value. They are now 90 per cent. The plan has been in existence for five years and the fees are not yet up to the unit value. I hope that we do not set up a schedule so high that we will have to wait five years before we are much more nearer our unit value than that.

With a low fee schedule, of course, you are much less likely to have to prorate payment, but you should remember that in establishing a fee schedule you are probably establishing in the minds of the laity the idea that such a schedule represents the going rate. That is inevitable, and I think with that in view the schedule should not be set too low.

However, I am entering into the thinking of the committee that will work out the fee schedule and I am probably getting out of my province. The fee schedule, of course, must be related to your premium rate structure. If we establish one that is inordinately high, we would have to charge higher rates. That follows just as night follows the day.

We, of course, have in mind that there is going to be a wide variation in the conditions you have to meet, that we could not set out one fee for any condition that would cover all manner of cases. You will have cases that call for very much more attention than others. We hope there may be a certain amount of latitude in granting fees in excess of the published fee when you have special cases which call for it.

The next question is that of management and control. We, of course, feel it is exceedingly important that control rests finally with the physician. It must do so. On the other hand, I think we should have enough lay members so as to get the benefit of their advice, actuarially, legally, and what not. I think we should have hospital representation because we are going to have to work closely with the hospitals. The two plans must work together. They both enter into medical care and have to be considered as a unit in that respect. With that in view, we have felt the corporation should be made up largely of par-

ticipating physicians, physicians who are vitally and personally interested in this thing rather than just physicians at large. We think it should be democratic in its make-up so that it is spread over the state generally. We hope it will be.

In the make-up of the Board of Directors which, of course, is tentative in our program so far, we have felt that each councillor district should be represented. The question of where nomination should originate is difficult, but in order to use some discretion in the selection of men who may have special qualifications to serve on the Board and who may have special interests, we have felt that the Board itself should probably be empowered with general nominations of new members who come on the Board, that it should name two men for each position, one to be elected, and that the membership at large should have the privilege of making nominations as it does in most organizations. Without some such setup you will have a lack of continuity in the management which is very detrimental in any organization. Commercial groups, industries, are criticized because of control within small groups, but really, men, it is very essential, if you are going to go on as a prosperous concern, to have continuity of management, which means that you develop certain principles in management which are carried out from year to year.

As to the financing of the plan, I understand that we have considerable money in our treasury and it has worried the men who are entrusted with its care. I believe we can take care of some of it. We have already submitted a request for some in the event this body approves this plan or some plan, and I have some assurance that we will get money from the treasury.

In the recent meeting where the two larger committees were present we discussed the matter of a contribution or a loan, a modest one, from individual members who are participating members, voting members. We arrived at a figure of \$25,000. We hoped that enough men would contribute so that we might have a fund of \$25,000 in addition to what the treasury gives us as a buffer. It is going to be very comforting in the early months of this plan or of any plan when you cannot predict just what the income and the outgo will be.

In connection with both the grant from the treasury and the contributions from members, in the event that is what you elect to do, we hope to repay when and as reserves permit, and probably the Insurance Commissioner will want a hand in that. Don't forget, by the way, that he is going to have a hand in all of our plans. We have visited with him and he is very sympathetic to what we are doing, but he is going to measure things not by what we propose to do but by the dollars and cents that we lay down on the line, and in the last analysis we are going to have to be solvent at all times in his opinion. That is why I think a fund of this kind should be built up, if it is the will of this body that we should do so.

I understand that the State of Indiana cannot start out on the same basis as we can. They are going to have to start as a mutual insurance company, and their state laws provide that they must have a paid-in capital of \$25,000 and another \$25,000 anticipated premiums. That means \$50,000, and my understanding, if I was correctly advised on my recent visit to Indianapolis, is that they are not going to call on the treasury there. I do not know just what their method of collecting that money will be.

In the meantime the main underwriting of this plan must be done by the participating physician. I hope I have made that perfectly plain. The solvency of this organization is in your hands. In good times and bad you are going to have to support it by taking smaller fees if necessary; if we approach it in that way nothing much can happen to the plan.

Why have we rather set our minds on a combined service and indemnity plan rather than a pure indemnity plan? In the first place, the plan is primarily for the low income group who require security rather than a mere credit on account. I should like to emphasize as strongly as I can that these people, when they buy something, do not want to assume that an appendectomy is going to cost \$50.00 or \$100.00 or \$150.00, but they want to know that when it has to be done it will be paid for. That is what they are paying their premiums for. That is what

they want, and I think that is what we are going to have to supply them. I don't know of any other motive that is worth while except that. I hope I have made my position clear.

The survey brings out this desire for security in their attitude toward our voluntary service plan operated by physicians as against government-controlled medicine. If in our plans we offer them this security, they are going to choose a plan of this kind where they can budget against their own illness. They will prefer it to having one imposed on them by the government which is not voluntary.

Third, a combined plan conforms more nearly to what the government offers in the suggested setup. Anything short of a service form of contract will not be an answer to the government threat. I feel that very strongly. I am sorry that I am using the first person pronoun so often here, and I should like to have you understand that when I am doing it I am speaking for the committee. It is not my opinion but the opinion of the committee. The third, then, would be that we are just conforming to what the government will give, and if we don't give something that compares somewhat reasonably with that, it is not going to take care of the situation. The government is much more likely to step in and say, "You have just half-covered this field. We will do it for you."

Fourth, it makes the plan very much more salable when you include this certainty of what each person buys, when he can be assured that when he pays \$2.00 a month for something, he will get something definite, not maybe \$50.00 or maybe \$100.00 or \$200.00, but a definite service. He is going to buy much more readily on a basis of that sort than he would on the other basis. Just witness what happened in Michigan. Michigan now has 650,000 or 700,000 members based on this theory. The largest competing company among commercial organizations on an indemnity basis is 150,000, I think, in the State of Michigan. I believe Mr. Ketchum told me that. That shows how much more salable a service plan is than an indemnity plan.

Fifth, it fits in more nearly with the ideals and the standards which prompted us all to take up the study and the practice of medicine. Why did we study the profession of medicine? For the dollars and cents? No, we did not. I do not think there is a man in this room who had it in his thinking very much. It was a question of service, of giving service, and we must not get to the point where we measure these medical ills simply in dollars and cents. In the last analysis the plan is being devised and established for the benefit of the subscriber, not for the benefit of the physician. We are using it as a hedge against socialized medicine, yes, but why are we doing it? We are doing it to give service to our subscribers. That is the reason.

Then, as the last point, I should like to say that the going plans of any size and which have existed for any great length of time are service plans. Witness California—I don't know the membership, 100,000 or more—and Michigan with 700,000 members. I don't know the number in Massachusetts's service plan. The going plans are on this service basis. What has happened to them? They are going strong. They are doing a good job. They are surviving. They are successes. I think there is no answer to this whole question quite like the word "success." They have had success with them. As for myself, I think that the service plan which combines service and indemnity is the answer to it.

As to the operation of the plan, everywhere it is being operated in conjunction with Blue Cross Plans. We have the common problem of the care and the cost of illness. It is most logical that it be combined with the Blue Cross Plan. Blue Cross has preceded us by some years in the establishing of plans. They have the personnel. They have the facilities to do this for us for a price and it is the logical way of doing it. It would be practically impossible to go to groups where they already deduct so much per employee every month and ask them to do it for two or three groups. They would rebel.

We ought to sell our plans with a common sales argument, a common sales effort, a common sales personnel. There is no reason why this should not be done, remembering all the time that we are going



to retain our identity, that we are going to control our own destiny in every way, just as the hospital plan is going to retain its identity. All we will do will be to engage their facilities to carry out the sales and the office records of the plan. That is being done in other states and it has worked out very well.

You might be interested in the cost of such an operation. Michigan Medical Service is at this time paying Hospital Service 7 per cent of its premium income for carrying on these functions for them. Michigan Medical Service, of course, has some additional cost. They have their own Claims Department, and I think that we should never entrust the handling of our claims to anybody but a committee of our own making. I feel definitely and strongly on that. That costs some money. They also have a skeleton organization for other functions, I cannot tell you just what they are, and the total cost to Michigan Medical Service on its own is 4½ per cent. Combining that with the 7 per cent they pay to the Blue Cross Plan they have an overhead of 11½ per cent of their premium income, which is a very reasonable cost. In that way we effect economies which make more of each dollar available for the subscriber; incidentally, also for physicians' fees.

Some antagonism has been shown in some of the correspondence. I think you have all been furnished with copies of letters that have come from servicemen. Those letters have been uniformly in favor of a plan, generally in favor of the plan as proposed. They have been very heartening to the members of your committee who have needed some little encouragement as we have gone along. A few expressed the fear of domination of the profession by the hospital plans. I really think there is no basis for any such fear. I have represented your Society on the Blue Cross Board here for some years, as has Dr. Bernard. I have yet to see any inclination toward not wanting to work in the most complete harmony with the profession. The fact that Blue Cross here and elsewhere has taken on certain medical services is due to the fact that we have been dilatory in taking on these functions ourselves and the public has demanded them.

Again I should like to refer to John Little, who I think writes very convincingly. He speaks of this matter of coordination and cooperation with Blue Cross, and calls attention to the fact that we have the same problems. The hospital and medical service are part of the cost of medical care, and the two need to be combined. You have to work together as a unit for success and he makes a plea for harmony between the two groups.

I should not want to leave the impression that the formation and operation of a medical service plan is a simple or a cut-and-dried affair. It will entail some experimentation, much work, and many headaches. Above all, it will require a united profession back of it, willing to support and to serve it in good times and bad, even at a personal sacrifice. High utilization in the early months following enrollment, occurrence of epidemics, and unfair practices by subscriber or physician may sorely try the stability of the plan. These factors will all level off as the plan grows older and experience is gained by the management, and yet it should be worth the price we pay.

In closing I should like to state that unless the profession is agreed on this plan, unless we go at it in a spirit of unity, I think there is very little object in going ahead. There is a great deal of complaint in California that the profession has not been back of the plan, and that feeling has been responsible for a lot of their troubles. I think Michigan is doing a very much better job, where I understand between 70 and 75 per cent of the profession of the state are participating physicians. I think that is a remarkable showing and that must be our aim.

I have before me here an editorial from the New York State Journal of Medicine for September 1 of this year, from which I quote:

"Many people sincerely believe that government medicine is good. We believe that voluntary medical care insurance is better. Our problem is simple. We must make more people believe that voluntary medical care insurance is better than now believe in government medicine, but first we must believe that ourselves, enthusiastically and unanimously. You cannot sell what you do not believe in. You cannot expect the new Bureau of Medical Care Insurance to sell

your insurance to people if you yourself do not believe in it. Certainly, it is your plan. Of course, you know that it is medicine's answer to compulsory federal insurance. You have read that time and again. You have heard it mentioned in your county society meetings if you were there. You realized naturally that your various county and state societies' medical economics committees were doing something about it, but what have you yourself done about it? Some things you can hire done; others you have to do yourself."

Then as a final statement I should like to read again from Mr. Little in which he talks along this same line and he says:

"Acting in unison is nothing more than team play. True, it takes a kind of spiritual guts on the part of the individual to put aside his interests for the sake of the team's objective. Doctors, however, seem to have a highly developed spiritual and esthetic quality. Once they learn the joy of team play, as a few of them have, you may expect to see them in the thick of the battle, using their highly developed intelligence and tact to disarm the enemy and render him harmless."

"We have said that the third step, taking positive rather than negative action, involves two moves: first, cleaning house; second, taking your story to the public. You may wonder specifically what is involved in cleaning house. I should like to tell you. First you must unify the profession in this stage. If you cannot throw the weight of the majority of your people behind a united front and then set up the machinery to meet the demands of the public, the people will desert you for a political panacea. Your problems of unification are no more serious than those of other groups. They are merely different problems. The machinery which you set up is a voluntary prepayment plan. The public will accept it as preferable to federal medicine, but the plan which you set up must be so conducted that the whole profession will rally to it, will support it enthusiastically; otherwise, it is no weapon."

In closing I want to say that I hope this body will take an affirmative action on the question of a medical service plan for Iowa. We favor this plan. Whatever you do, don't go away from this meeting without adopting some plan. We must have some answer to this question.

The Speaker: Thank you. In opening this report for discussion I want to call your attention first to the fact that Dr. Brunk made no address. It is our thought that Dr. Brunk and Dr. Olsen will answer questions and explain points in the plan which are not clear. Secondly, I appreciate the fact that we can go on and on from now until the day after tomorrow, discussing this plan. I have met with these committees several times. Frankly, they have had hours and hours of discussion and arrived back where they started. If possible, confine yourselves to discussion of the broad features of the plan rather than to minute details.

For a matter of time I shall say that I entertain a motion to adjourn at eleven forty-five, so that this room may be prepared for lunch.

Dr. A. D. Woods: I so move.

*The motion was seconded, put to a vote and carried.*

The Speaker: We shall adjourn at eleven forty-five. In opening the discussion I shall ask Dr. Billingsley to give us a brief outline of the enabling act which will be necessary before we can enact this into law.

Dr. J. W. Billingsley: Dr. Bernard and Members of the House of Delegates: Of course, if this plan is turned down no enabling act will be necessary. If the plan is accepted, in order to work legally in the State of Iowa a law will have to be passed by the next session of the Legislature allowing a medical group to incorporate, which at the present time is illegal. Several features of this law will have to be worked out. I will take just one of them. For instance, we expect to specify that at least 250 physicians shall bind themselves together before the corporation can function. That will keep groups of four or five from starting little indemnity companies of their own.

Your committee has had legal advice on this enabling act. It has been taken to the Insurance Commissioner, to the Attorney General, and to members

of the Legislature, and we think we will get all the help necessary in getting the act passed. All you have to do is to decide whether you want this plan and will accept it. If you do accept the plan, we will do all in our power to obtain the enabling act for you.

Dr. John I. Marker: In order to get this before the House in proper form, Dr. Olsen not being a member of the House of Delegates he tells me, I move that we adopt the plan as proposed by him, and we will have something definite for discussion.

Dr. C. A. Boice: I second the motion. We want to talk this over before it is adopted.

The Speaker: All afternoon, Doctor.

Dr. Suchomel: The motion is definitely that we adopt?

The Speaker: That is right.

Dr. Suchomel: I move an amendment to the motion that we accept the report.

The Speaker: Do I hear a second to that?

Dr. Woods: I second it.

The amendment was put to a vote and carried.

The Speaker: Now we are voting on the original motion as amended. Is there any discussion?

A discussion ensued as to the necessity for Dr. Marker's motion. It was put to a vote as amended, and the motion was lost.

Dr. Hennessy: I move that the House of Delegates receive this committee report for discussion.

The motion was seconded, put to a vote and carried.

The Speaker: We will turn to the Articles of Incorporation. I assume that you all have read them and do not care to take them up paragraph by paragraph. I call your attention to one thing, the matter of charging each individual who becomes a member of the plan \$25.00. Do you understand that? Is it clear?

Dr. Hennessy: Dr. Bernard, we don't understand what you are discussing now.

The Speaker: I wish to call your attention to the fact that at the bottom of page 2, Article VIII definitely states that a contribution of \$25.00 will be received from all participating physicians. Will you explain that, Dr. Olsen? Why do we want \$25.00?

Dr. Olsen: I think it would be with a great feeling of security that we would approach this subject if we had some fund of that sort. In Michigan they became very enthusiastic over the suggestion that we secure a fund of that kind, which may be a surplus or a reserve of possibly \$25,000 at the inception of the plan. I don't think it is absolutely necessary, but I think it is very desirable.

The Speaker: Is there any discussion of this point?

Dr. W. R. Brock: Mr. Speaker, I should like to ask whether this fund from contributions of \$25.00, or whatever amount is decided upon, will have to be paid once or will become due yearly.

The Speaker: Once, Dr. Brock, and it is to be repaid if and when the surplus is available for that purpose. That will be under the control of the Insurance Commissioner. Are there any other questions?

Dr. R. F. Luse: I should like to know who is to appoint those committees. Article IV says: "Membership in the Corporation shall be those who are admitted to membership by the Board of Directors of the Corporation and shall be limited to those physicians and surgeons who have entered into contract with the Corporation to furnish medical and surgical service and such other persons not practicing a healing art as the Board of Directors shall elect to membership, provided, however, that no such other persons shall be elected to membership in excess of . . . per cent of the entire membership of the Corporation."

"Article VI. The affairs of this Corporation shall be managed by a Board of not less than 15 nor more than 25 of which at least two-thirds shall be physicians or surgeons holding a contract with the Corporation to furnish medical and surgical service. Until the first annual meeting of the Corporation the Board of Directors shall consist of the following:"

Who appoints the following? That is my question.

The Speaker: That was explained in Dr. Olsen's remarks. Perhaps you did not hear it. How are the directors appointed or elected?

Dr. Olsen: We would have to have legal advice. I am not the last word on this subject, but I suppose that in the formation of the first board we would have to be more or less arbitrary and set up a board

for the beginning of the plan. The setup, though, later on will be as outlined here, by having nominations made for two from each councilor district, with the election of one of them, and with any ten participating members having the privilege of making a nomination. I don't think any board is going to be very anxious to perpetuate itself because this is going to mean real work for the members. They would be glad not to have the work, but when you do have a board that has become thoroughly familiar with the problem, and it will take a good while, I think you will want to continue it for some length of time. The duties are going to be arduous. However, it was not the thought of building a perpetuating board that prompted the wording of Article VI, but the idea of continuity of management. I don't think we have any complex on this particular setup. We wanted a democratic way of doing things. For that reason we wanted all the sections of the state represented. We thought it was wise to limit it to participating physicians, and it has been called to my attention this morning that that was a very smart thing; otherwise, you might have a man elected just because someone in that councilor district thought he would be good on the Board but whose interests did not extend to the Corporation. If anyone has any suggestion that is better or different, I am sure the committee will be very glad to have the benefit of it.

Dr. Luse: My question was not for criticism but for information. It does not say who shall appoint that board. I wondered if the House of Delegates would appoint it or whether the committee that wrote the plan would appoint it.

Dr. Olsen: I do not know whether any decision has been made. I don't think this committee is familiar enough with the membership to make wise selections at this time. I would be wholly unable to do so, and I think the initial appointments would be made on advice from our President and our President-Elect and probably from other officers.

The Speaker: Would you like to make a suggestion, Dr. Luse?

Dr. Luse: I suggest the present Executive Council of the State Society. They are more familiar with the men around the state, I think, than anybody else.

The Speaker: We will accept that suggestion very gladly.

Dr. Fred L. Knowles: I should like to make a suggestion relative to the Board. It seems to me that it would be well for each branch of medicine and surgery to be represented. I mean by that, eye, ear, nose and throat, orthopedics, pediatrics and general surgery, and include each one of the branches as a prerequisite. I do not think that a Board of Directors composed of all general practitioners or eye, ear, nose and throat men or pediatricians would make a well balanced group. I think there should be others besides those groups, but I think it should be specific that each branch of medicine shall be represented on the Board.

The Speaker: Are there any other suggestions?

Dr. J. R. Dewey: It has been definitely stated that this does not apply now to the practitioner in the country as much as it does to the man in the city. Might it not be wise to over-weight the committee a little with general practitioners, to get increasingly the practitioner's viewpoint in the matter?

The Speaker: Another very good suggestion. Are there any more suggestions? If not, I will entertain a motion.

Dr. Olsen: I should like to make a statement here. You mentioned general practitioners, and I probably should have stated a while ago that the general practitioner has a bigger part in this than you might think at first blush. In Michigan 60 per cent of the surgery is now being done by general practitioners within this plan. It probably gives you an idea of the extent to which the general practitioners participate in the plan.

The Speaker: I will entertain a motion that we adopt the principle of the Articles of Incorporation.

Dr. Suchomel: Mr. Speaker, I move that we adopt the Articles of Incorporation.

Dr. James A. Downing: I second the motion.

The Speaker: You have heard the motion. Is there discussion? Are you ready for the question? All



those in favor signify by saying "aye"; contrary the same sign.

*The motion is carried.*

Secretary Parker: Before we recess, I just want to announce to the House that we have 19 officers, 44 delegates, and 16 alternates present, making a total of 79.

The Speaker: We are recessed until one-fifteen.

The meeting recessed at eleven forty-five o'clock.

### WEDNESDAY LUNCHEON SESSION

November 1, 1944

The meeting convened at twelve-forty o'clock, Dr. Bernard presiding.

The Speaker: Dr. Bierring is not a member of the House, but I should like your consent to have him talk for about five or ten minutes on the situation as he found it on his last trip. I think the information would be of much value to you and would perhaps stir you to do something. May I have that consent, please?

Consent for Dr. Bierring to address the meeting was given.

Dr. Bierring: Mr. Speaker and Members of the Society: I am not just sure what Dr. Bernard would like to have me say, but you know that during the last thirteen or fourteen years, as we have discussed these medical care programs, it has been the common objective of all of us to deliver to all the people the very best of scientific care available. It has been largely a discussion of methods, and in these discussions, of course, political economists have prevailed and government employees have endeavored to set before us a nationwide plan of medical care.

This concept had its beginning in the old Committee on the Cost of Medical Care which gave its report in 1932. It again was in the general hospital bill that was brought before you in about 1938, and again particularly in the Wagner-Murray-Dingell Bill with which you are all familiar. We felt that the very strong movement made by the profession of this country had convinced the people the method approved by the Wagner-Murray-Dingell Bill would not give to them the best quality of service, because it would subsidize and federalize the profession and it had many other objections. I think the Wagner-Murray-Dingell Bill is dead. Recently, however, there was a meeting of the American Public Health Association, which, of course, is a smaller association than the American Medical Association, but it has about 9,000 members, and its name means a lot to a great many people. They appointed a so-called Committee on Administrative Practice, and formed a subcommittee of that committee for the purpose of developing a plan of medical care.

It is interesting that the report of that subcommittee was not published until about September 10 and the meeting of the Association was on October 2. Of course, a few of us had a chance to read it, but it was brought forth on Monday, October 2, in what is known as the governing body, something like your House of Delegates only somewhat differently selected. You have to be a fellow of the Association in order to be a member of that governing body. That means that you have had at least from five to ten years of active work in public health. The program of medical care presented, of course, was to be controlled by the United States Public Health Service and then through the individual state health agencies. It was really more inclusive than the Wagner-Murray-Dingell Bill. It included everybody, not only those engaged in industry but the indigent and the unemployed, everyone. It was to be supported by so-called social insurance and taxation. Social insurance, of course, means employers' insurance or some other way of taxation or wage deduction or withdrawal.

It came up for a vote on the first day and we were able to defer it for final action until Wednesday, October 4. It was evident how it was going. We had only one member on that subcommittee who was really medically minded, and he was Dr. Haven Emerson, of New York, who is now teaching at the University of Minnesota temporarily, a man who has lived his whole life in public health and preventive medicine. He was Professor of Public Health and Preventive Medicine at Columbia for thirty or thirty-five years, and yet that man came out firmly and

said, "You are delegating something here in the way of medical care to a class of people who have not the experience and qualifications and who do not know how to administer it." Yet very much of his argument was without avail.

On the second day we endeavored to get an amendment passed by which the report would be received and then submitted to a conference between trustees of the American Medical Association, the American Dental Association, and the governing body of this American Public Health Association. Only three of us had a chance to say anything, including Dr. Bauer of the American Medical Association, who is a fellow of the governing body by reason of his connection with the Section on Health Education. They very promptly voted down the amendment. Then when the motion was put, again we tried to tell them, "You are presenting to the physicians of this country a measure that is more inclusive than the Wagner-Murray-Dingell Bill. You are placing a responsibility upon medical men, and they have had no word to say about it. You are disregarding the wishes of 80,000 practitioners who are taking care of 120,000,000 people and of the 55,000 who are in military service." It was of no avail. The vote was 46 to 14, and the 46 were mostly sanitary engineers, nurses, federal employees, and certain foundation heads, political economists and Ph.D.'s in great numbers.

A great point was made of it in the New York Times the next morning, about what a wonderful victory it was for the future of better medical care in this country. You may think that this is not important, but the following two days the International College of Surgeons, meeting in Philadelphia, approved this plan, and the American Pediatric Society, which is a very select body of teachers and pediatricians, essentially approved it at Atlantic City the following week.

Those are just indications of what is going on. In spite of the fact that we have in a sense shelved this Wagner-Murray-Dingell Bill for the time being, you will notice that at least in eight or nine states they are bringing up amendments which will take its place. They are appealing to the people. They, of course, constantly tell you, "Well, you medical men don't seem to be able to agree on any plan. You are constantly criticizing what we put forward, but you don't seem to have any plan of your own."

That is one reason I do hope you will do something here today.

Now to show you that there is another movement on foot, although you may think that these are not important, there is to be a conference on health programs. I don't know where the idea originated, but there are twenty-seven members and they are the same names that you have seen before, the same names that originated the Wagner Bill and all the others. They are economists and they are all situated geographically east of the Allegheny Mountains with one exception.

Theirs is equally as inclusive a plan. It does have a few salutary points. It does agree that it will work with local organizations like the Blue Cross or service organizations so that there is possibly a tendency to meet some of our objections, but, on the other hand, it is completely under federalized control. Unfortunately, this is fostered also by the regular personnel of the United States Public Health Service. I think it would be interesting for you to know that the principal person who originated the plan in New York City was Dr. Mountin, who is Assistant Surgeon General of the United States Public Health Service. He has always felt like this.

We had a large meeting of a thousand people of which he was chairman. They were waiting for the report on this vote, and he rushed over there and with considerable pleasure announced that they had won out, that the health officers of the country were in favor of the medical care program. There was great cheering and the New York Times made a big point out of it the next morning. The following day, Friday, there was a meeting of the Health Officers Association, a little, close organization which will not permit any federal employees to be in their executive sessions. They were discussing this tuberculosis appropriation which is soon to become effective. Dr. Parran was still sitting on the front seat, and Dr. Mountin, of course, was there. A little Virginian, from Richmond, who is president of this Health Association, got up

and said, "Now we want an explanation from Dr. Mountin as to what he meant when he announced to that large general assembly yesterday that the health officers of this country are in favor of this medical care program." He hesitated a bit and finally he got up and said, "Well, I was asked for a report and I simply reported." That is all that was said at that time, but the next week Dr. Mountin was assigned to a station in India for three years. So we still have a few friends left.

There will be another act, of course, before Congress this year, and if you know about these hearings before the Committee on Education of which Senator Pepper is Chairman, you have an idea of the sentiment developing in Congress in favor of some nationwide medical care program. They are now talking, of course, mostly about hospitals and the distribution of hospitals, but with it goes the distribution of care. Therefore, it comes from all sides. It surrounds us. I don't care who wins next Tuesday, there is going to be enough sentiment so that some form of a national medical care program will be proposed. I believe, as I say, that the eyes of the country are upon us today. They are looking to you to start a program of medical care within the Society itself by doctors. How helpful it would have been when we had that headache of the EMIC program if we had had this kind of an organization to which we could have gone for consultation. We did finally establish a uniform fee of \$50.00 for obstetrics throughout the country, and we have gotten Martha Elliot to say in the next Journal of Pediatrics that this program is for the duration only.

By all means do something, because you have here before you a very logical plan, a plan that will give medical service to a great many people of the low income group and will take care of the catastrophic illnesses that make the load upon the family budget. It has its limitations. It is by no means complete, but you can make it more complete as you begin to grow.

Again I say that we are up against just as much of a fight as we have had at any time. There are these medical economists of the country who are developing a new philosophy, and they feel that social security means the security of health, and they are bound in one way or another to incorporate that into the national plan of social security.

The Speaker: Thank you, Dr. Bierring.

The meeting recessed at twelve-fifty o'clock.

### WEDNESDAY AFTERNOON SESSION

November 1, 1944

The meeting convened at one-twenty o'clock, Dr. Bernard presiding.

The Speaker: During the luncheon hour I received two suggestions which I think should be considered before we proceed. One was with regard to the wording of the last motion which, unfortunately, I did not declare carried, to the effect that we adopt the Articles of Incorporation in principles rather than that we adopt the Articles of Incorporation as read. If we would change that to read "in principle" it would solve a problem if it became necessary to make changes. For instance, even the Insurance Commissioner might wish to make a change. What is your wish?

Dr. Suchomel: I move an amendment to that motion. Dr. Boice: I second it.

The Speaker: The motion is that we amend the motion to read "adopt in principle." Are there any remarks? Are you ready for the question?

Dr. Woods: May I ask, when we adopt in principle that simply means we are adopting in principle the particular thing under discussion?

The Speaker: The one we discussed just before lunch, Doctor.

Dr. Woods: And any adoption of the plan as a whole must come as a separate consideration?

The Speaker: That is right. Are there any other remarks? Are you ready for the question? All those in favor signify by saying "aye"; contrary the same sign. *The amendment is carried.* Now we shall go back and vote on the original motion as amended. All those in favor signify by saying "aye"; contrary the same sign. *The motion is carried as amended.*

The Secretary suggests that in view of the fact that members of the press have been invited to be with

us, perhaps the discussion this afternoon should be in executive session. It is customary in the American Medical Association to discuss family matters in executive session rather than to invite the press or people who are not particularly interested in our own family affairs.

Dr. J. W. Thornton: I should like to move that this House now go into executive session and that we permit all members of the State Society, past officers of the State Society and county officers to be present together with the regular delegates.

The Speaker: Would you include guests in that motion, please?

Dr. Thornton: And guests.

*The motion was seconded, put to a vote and carried.*

The Speaker: I will appoint Dr. Parker as Sergeant-at-Arms. We are now in executive session.

The next subject for consideration is that of the By-laws. Are there any questions you would like to ask or any suggestions you would like to give the committee?

Dr. Suchomel: Mr. Speaker, I believe that some provision should be made for setting up the first Board of Directors to form the organization, and to bring the matter up for discussion I move that the Executive Council of the Iowa State Medical Society be empowered to appoint a pro tem Board of Directors to effect the organization of the Iowa Medical Service Plan.

Dr. Luse: I second the motion.

The Speaker: The motion has been made and seconded.

Dr. D. W. Harman: Mr. Speaker, why make all of these plans until we know that we are going to have a plan? We are going on the assumption that we already have the right.

The Speaker: Are there any other questions? In reply, Doctor, I would say that if we do not dispose of the preliminaries before we reach the final decision, we will have to go back and do it all over again. If this meets with your approval as we go along, then we will have something to work on for a final opinion.

Dr. Harman: If you don't decide on any plan, you won't have any preliminaries to decide on.

The Speaker: I think we will have a plan of some sort, Doctor. That is what we are here for. Are there any other remarks? Are you ready for the question? The question has been called for. You have all heard the question. Would you like to have it read?

The question was read.

The Speaker: All those in favor signify by saying "aye"; contrary the same sign. *The motion is carried.*

Dr. Boice: Section 2 of Article II does not seem to be clear. I have prepared this amendment to replace Section 2 of Article II of the By-Laws:

"The Board of Directors shall, prior to each annual meeting of the members, specify the number of directors to be elected at that meeting, provided, however, that at least one-third of the members of the board of directors shall be elected annually. The term of each director shall be three (3) years, provided that at the first election after the adoption of this plan one-third of the directors shall be elected for one year, one-third for two years, and one-third for three years. Nominations of the two candidates for director for each councilor district shall be made by the Board of Directors from recommendations made by the councilor of the district or by filing with the Secretary a petition signed by at least ten members." Mr. Speaker, I move the adoption of that amendment.

Dr. J. E. Reeder: I second the motion.

The Speaker: It is open for discussion.

Dr. Suchomel: Mr. Speaker, may I ask Dr. Boice if he means that the councilor of the district is going to have the choice of these nominations?

Dr. Boice: He shall nominate the two to the Board of Directors and then they will select one of them.

Dr. Suchomel: In other words, they will select one of the two individuals named?

Dr. Boice: Yes.

Dr. Suchomel: Where will he get the names?

Dr. Boice: The councilor will furnish those names from his district. The Board will take one of them. Or ten members can file a petition.

Dr. Suchomel: In other words, the councilor is going to run the organization?

Dr. Boice: No.



Dr. Downing: Suppose your councilor is a non-participant. How can he pick two men?

The Speaker: He must be a participating member to have any voice whatsoever in the organization.

Dr. L. L. Carr: However, wouldn't this amendment change that?

The Speaker: This would change the idea of the committee. Has the committee anything to say about this?

Dr. Olsen: I do not know how desirable it is to have it quite independent of the state society organization. Offhand I cannot see any objection to the amendment that is offered. I think we should not have too much fluctuation in the make-up of the internal organization, surely until it gets on its feet. From then on you won't permit it, that is all, because you will know that it is not desirable, but in the early period I think we ought to have fairly definite management, and I don't believe anybody is interested in having control of this. I certainly think no one wants it. Probably that is a good suggestion. I really haven't any very definite idea on it.

The Speaker: Anyone else?

Dr. Luse: I think the Executive Council is pretty well acquainted with the different men in the state and I believe they should be entirely competent to select the men.

The Speaker: Are you ready for the question? It is moved and seconded that the amendment to Section 2 of Article II be adopted. All those in favor signify by saying "aye"; contrary the same sign. I will ask for a rising vote, please.

Dr. Marker: I should like to have the motion that we are voting on read. I could not hear it very well.

The motion was read.

The Speaker: Is that clear? Are you ready for the vote now? All those in favor please rise. Now will those opposed please rise? Those in favor are a majority and the motion is carried. Are there any other suggestions?

Dr. Boice: Mr. Speaker, in Section 2 of Article III I think it would be best if you would specify from what source the Executive Committee should be named, and I move that Section 2 of Article III be amended in that the words "to be selected from board members" be inserted after the words "executive committee" in the first line. It would read, "The executive committee (to be selected from Board members)." Is that plain enough? Just insert the words "to be selected from Board members" in parenthesis after "executive committee."

The Speaker: Do I hear a second?

Dr. Suchomel: I second it.

The motion was put to a vote and carried.

Dr. Hennessy: I think Section 4 of Article II should be clarified on the following: "... the board of directors shall have authority to make rules and regulations for the conduct of the affairs of the Corporation, to decide on the scope of the services to be furnished subscribers and any conditions thereof, to adopt rates and fee schedules and enter into contracts for the rendering of all such services..." Now what does that mean? Does that mean that in a county, for instance, where there are a group of non-participating doctors and maybe no participating doctors, this Board of Directors will have the right to enter into a contract with some doctor in the county or some other county to provide that service?

Dr. Olsen: If you will read further it says, "... for the rendering of all such services." I should think those would be physician contracts. That is my impression. It does not say "physicians," but it says, "... enter into contracts for the rendering of all such services." Nobody but a physician can render them, I think, and I believe that it is fairly clear, isn't it? Should we add there the words "with physicians"?

Dr. Hennessy: I realize that you have the right to enter into contracts, but the point is, does that grant you the right to make contracts in a county, for instance, that might not be in accord with this particular plan, whereby you could send doctors into that county who will participate?

Dr. Olsen: I think it would rarely be done. Michigan has three counties where it has a rather large membership in the plan and where the physicians got crosswise with the plan. I think it was a matter of personnel, not of principle, but they have no par-

ticipating physicians as far as I know in those three counties. They have rather a large membership and they are functioning through non-participating physicians. Am I right, Dr. Brunk?

Dr. Brunk: Yes, that is right.

Dr. Olsen: I had not thought of the eventuality of going outside the territory to supply physicians. I think that would probably be rather far-fetched. I think we shall have to do a little functioning through physicians who may not be members in a matter of this sort. We should like to have it an advantage to be a participating physician.

Dr. Hennessy: I just wanted to have that understood.

Dr. Woods: I think that the approach Dr. Hennessy has made here is the proper one; that is, that we should discuss this subject for information. I have not voted for any of these motions because it seems to me that they are out of order, that we are laying brick before there is a foundation, and that is the feeling of Marshall County. If it is not out of order, I should like to present at this time the suggestions that have come from Marshall County, if I may have the privilege.

The Speaker: You may.

Dr. Woods: Dr. Olsen said this morning, gentlemen, that Iowa is largely rural; therefore, this plan will be difficult. He also said that very little provision is made for general practice. Furthermore, he made the statement that this should be democratic, participated in by all the practitioners of the state, and that in order to put it over, it will require a united profession. Then later Dr. Billingsley said that we have no enabling act yet; that if we go ahead this afternoon, as I understand it, and adopt this plan, it cannot be legal until we are given legality by the Legislature.

In view of those statements and the fact that this plan must be largely put over by the profession as a whole, it seems to me that this is the time to discuss that and I take the liberty, Dr. Hill, to read from your able editorial in the October issue. Here is what your Editor said:

"The task that confronts us is not an easy one. Hard work and clear thinking beyond the ends of our noses are essential if we are to make the Iowa Medical Service Plan a success. That it can be made a success and a growing success we have no doubt for there is affirmative precedent from many other states."

This is what I have underlined from this editorial: "But the wholehearted, harmonious cooperation of every Iowa physician must be forthcoming in order to demonstrate conclusively that private enterprise can be organized to meet the demands of changing socioeconomic conditions among our people."

Now I feel, gentlemen, that I should like to ask Dr. Hill after he wrote that able editorial how many letters he received from the rank and file of the profession endorsing it and how many letters did the Secretary receive. It seems to me that we are trying to lay brick here before we have any foundation, and Marshall County has this to present this afternoon for your consideration:

1. That this meeting be devoted entirely to a discussion of the proposed Iowa Medical Service Plan.

2. That following this meeting referendums be held in all the component county medical societies in Iowa.

3. That after thorough discussion of the proposed Iowa Medical Service Plan in said meetings of all county societies a vote be taken by each county society to either ratify or reject the plan.

4. That the results of such ballot be placed in the hands of the Secretary of the Iowa State Medical Society on or before the first meeting of the House of Delegates at the next annual session of the Iowa State Medical Society in April or at some earlier date as may be decided upon by this House, at which time the ballots shall be counted in open session.

5. It is further proposed that no ballot will be considered legal unless officially signed by the secretary and delegate of each component county medical society.

6. That any county society not recording a vote be counted as voting to reject the plan.

7. That an affirmative vote of two-thirds of all the component medical societies of the State of Iowa be necessary to ratify the plan.

I move that we adopt these suggestions and act accordingly.

The Speaker: Do I hear a second?

Dr. H. A. Householder: Now, gentlemen, I feel, as a representative of my district and as a delegate from my county, that the suggestions just read by Dr. Woods are not very much amiss. I would hate to cast a vote for the plan, while I think the plan is all right and undoubtedly I will eventually cast such a vote, until I had consulted my local county society, for the simple reason that most of the delegates here have come uninstructed. They have come for the purpose of being instructed here in regard to what this plan is. Therefore, I second the motion.

The Speaker: It is open for discussion, gentlemen.

Dr. Maxwell: Mr. Speaker, we are here, as I said this morning, because the House of Delegates instructed the committee to be appointed to prepare a plan. This is not a plan that is being forced upon the Iowa State Medical Society. It is a directive from the Iowa State Medical Society to the House of Delegates that a plan be prepared. From that the committee assumed that the Iowa State Medical Society wanted a plan of some type.

A copy of this report was sent out several days ago to each county in the state, with a request that the doctors get together and discuss it. I happen to be from Woodbury County. Woodbury County has given this subject consideration for a period of two years. In fact, we had our own plan set up to start on a county basis, according to the blessing given to that type of thing by a special meeting of the House of Delegates in 1938, and it has dragged on now for a period of six years since that time. We had all of our battles for and against and we decided, I think unanimously, in favor of a plan. However, we are deferring any further action on the Woodbury County Plan in the hope that a state plan will go through.

Our plan is not exactly the same as that of the state. The purpose of it is absolutely the same, to carry out the demand of the people. This has been dragging on month after month, year after year. The committee has consulted the people who have had experience in this, and I question whether any further instruction to the county medical societies will get us any place. It was my understanding that it was the desire of the House of Delegates to get some action on this plan. This meeting is now two months beyond the period the House of Delegates specified, because the committee was not able to do the work in the period of four months.

Dr. P. W. Van Metre: I feel there is something to be said for Dr. Woods' motion, but I cannot forget that the most important thing that was said here this morning about the plan, in my way of thinking, was that there must be a need in the profession or the plan will not succeed. Gentlemen, I believe that if we knew the innermost heart of every man here, we would find that he feels the plan is being railroaded a little. I do not feel that it is the part of wisdom to delay action any longer than is absolutely necessary provided it will obviate government control. However, you say that the matter has dragged on and on. Well, let it drag a month longer. We can come again. We can refer this to the county societies and have them say in writing over their signatures whether or not they approve it. I think there should be a little more leisure. Let's listen to what Dr. Woods has to say. He has been honored as a delegate to the American Medical Association, so he is not an upstart and he has his ideas. I think the point is well taken that we should proceed to make haste slowly.

Dr. M. T. Morton: I agree with what Dr. Woods said and I agree with what Dr. Van Metre said, but in view of the fact that the Legislature meets the first of January, we cannot wait until we have another meeting to get this enabling act through and to get this machinery going.

Our county had a meeting the other night and I was instructed to vote for it and personally I don't like to have to make another trip down here for that purpose. If we have to have another meeting to do it, I am willing but let's get the thing moving.

Dr. Van Metre: I should like to ask how many were at the meeting that instructed you. There were three at our meeting.

Dr. Morton: Well, we were all there.

Dr. Brock: My county had a meeting about a week ago and we threshed out all the things we thought we should thresh out and wound up by giving me authority either to accept this plan or reject it. I do not see why all the other counties could not have done the same thing so that we could do business and have this thing settled once and for all. If we don't do it in that way, there will always be something lagging and we will never get anywhere. Every man in our county was present at our meeting.

Dr. Suchomel: To report for Linn County, we had two meetings on this subject. The first meeting was in response to the first information that we received, that skeleton notice. As the result of the first meeting, the delegates were instructed not to vote for or against but to come back with more complete information. Upon receipt of this voluminous material, we had another meeting, and after discussion, when considerable dissatisfaction was voiced with certain provisions in the fee bill, omissions largely, the delegates received the same instructions. In other words, I cannot vote for or against regardless of how I feel. They want more information.

Dr. Harman: We carefully canvassed what few remaining doctors there are in Mills County. I want you to look at the picture as we see it. We are a typical Iowa County, entirely rural. Michigan is an industrial state. Here in Iowa our clientele are farmers. We feel that there are too many things wrong with the plan.

We are a small county, a rural community, with no large cities. Our hospital facilities are from twenty to thirty-five miles away. The adoption of this plan and the universal distribution of the service would mean that the general practitioners in Mills County would become nothing more than glorified office boys. Must we take everybody to a hospital? Ninety per cent of our fractures are handled at home, 95 per cent of our obstetric cases, and I will say 85 per cent of our medical cases. Given universal distribution of this plan, along with the Blue Cross, as soon as we make a diagnosis they will want to go to a hospital, naturally. That ends us. What do you want us to do? To sell apples on the street corner? Think these things over, you men who are from the rural districts. The fee bill takes care of the surgeon very well, but what does it do to the medical man? What am I to do if I get a case of pneumonia? Get \$10.00 on the third day or the fourth day? Can I make a trip once a day or twice a day if necessary to care for my patient in the hospital on that kind of a fee?

We feel in Mills County that no medical service prepayment plan will be a success unless it is a universal affair. I realize, of course, that the men who have been on that committee have put in a lot of thankless work and nothing I have said is to be construed as criticism of these men. It is simply my irritation with the plan and with the almost disfranchisement of the man who is practicing as a country physician. He will have to cease to exist. The practice of medicine has been good to me. All that I have I owe to it. In spite of what the doctor said a while ago, I have gotten something besides the pleasure of giving service out of it. We all have. None of us disputes the fact, from the man who charges \$500 to \$1,000 for an appendectomy to the man who does it for \$25.00. Are we all to become surgeons in order to collect fees? Must we put the majority of our cases into the hospital in order to collect? No, I don't think that is the plan, but many of these questions should be answered. Our county sent me instructed to vote a big "no," as I do now.

Dr. C. R. Harken: Our county is strictly a rural community. I come from Clarke County. Dr. Van Metre said that Dr. Woods is not an upstart. I would rather be considered an upstart because I have never been very active in the deliberations of the House of Delegates. We received this literature and I believe that most of our men read it. As a delegate to this meeting, I asked that they have a special meeting of the county society in order that I might know where I stood, and we had a meeting. All the members were present. They considered this material much as you are considering it here now.

We have old men in our society of whom perhaps I may be one. Some of them had certain personal reservations. We had the advantage, of course, in our meeting of having one member of the subcom-



mittee with us, Dr. Stroy, who is a member of our society. We were thoroughly convinced of the efficiency of this committee, of the honesty of the committee, and of its desire to do that which would count most for the medical profession as a whole. We felt that this committee was particularly fortunate in having a man of the caliber of Dr. Olsen to solve many of the knotty problems. My society passed a motion that I should be instructed to vote for the plan suggested by the subcommittee and that I should exert my efforts to cooperate with such a plan with the idea that it might be perfected.

I have no better friends in this society or in this House of Delegates than Dr. Woods and Dr. Van Metre. Dr. Woods has stated that we are building without a foundation. My conception of this meeting is that we are not building at all. We are architects of a new plan, and I believe that as architects of this plan we have builders within our organization who are thoroughly capable of laying the foundation and completing the structure. I believe that the difficulties of building are going to be ironed out. I do not question the honesty or the integrity of any man with whom it will be entrusted and I still think that the House of Delegates will be in control.

I do think that there are knotty problems, problems that are disagreeable and distasteful, but considered in the light of federalized medicine, which Dr. Biering so ably touched on at our luncheon meeting, I feel compelled to exert my energies and my activities in seeing to it that such a plan is put into effect forthwith, and I believe that we as delegates should go back home as emissaries from this meeting and educate, through conferences with our colleagues, with the idea of bringing them to a state of unanimity on this subject. I wish that we could have complete harmony in this meeting. I cannot believe that there is a man in the practice of medicine in the State of Iowa who will not be ultimately benefited by this plan, and I believe that ultimately, when the knotty problems are ironed out, the general practitioner will be glad that he has taken this step to forestall this federalized imposition that is about to be thrust upon us.

Perhaps I have talked too long. I thank you for your attention, and I should like to say that we cannot depend upon the man out in the field to formulate these things. We realize that from the standpoint of democracy the man at the bottom, the man at the base of the pyramid is supposed to be the man in power, but he never functions efficiently. Neither do we want to turn the pyramid upside down and try to balance it on its apex and to put the entire power into the hands of our President or Secretary, but we must select our representatives and delegates among men who are familiar with the plan, who are interested in the plan, and who are members of it, and let them administer it to the best of their ability with our cooperation. I thank you.

The Speaker: Is there further discussion?

Dr. J. S. Gaumer: I agree thoroughly with the last speaker. Some of the arguments we have heard are simply to put the thing off like the medical profession has been doing ever since socialized medicine was talked of by the powers down in Washington. I think this House of Delegates is trying to do something definite today. Every county had a chance to have a meeting and to instruct its delegate, so why put it off? Why send us home to talk this matter over and then come back again? You had a chance to talk this matter over with your societies and to be instructed. I was instructed by our county society to vote for this plan or something similar to it.

Dr. J. C. Painter: I am very much interested in this plan personally because I was the man who threw it into the House of Delegates. With all due respect to my friends on the Council (I think they are my friends) I think I did them a favor when at the regular meeting I requested that there be a special meeting of the House of Delegates for this discussion, to have some type of plan studied and some definite type of plan offered to this special meeting of the House of Delegates.

I think there is one word we have all forgotten that has not been mentioned today. We started out to take care of the catastrophic illnesses. I feel, and I think most of you men feel, that some definite plan

should be adopted by this Society. I do not think there are very many men who do not think that.

Now the second thing is I do not think anybody could listen to Dr. Olsen and Dr. Maxwell and these men who have been on this committee, with the fund of material that they have and the amount of study they have made, and not feel that they have done a good job, the job that they were asked to do. There are lots of things that are pertinent. One thing they did try to bring out was the mistakes in the Michigan plan when it started. I understand about the general practitioner. I am one myself in a country town. I can absolutely agree with what these men say, but isn't it true and hasn't it been found in the experience of all of these plans, that the people will not pay the amount of money that would have to be charged for all illnesses? I think that has been found to be true. It is true that the general practitioner is probably not covered as well as we should like to have him covered. It would be wonderful if we could have a plan which would cover everything and we could sell it at the premium rate that would have to be charged. That may come. In all the negative reaction I have seen here from the general practitioner in the small town, he has not offered a single thing which shows us how we can cover everything and get a satisfactory premium so that we can sell it.

We discussed this, I think, at three meetings, at two meetings pretty definitely. There were a lot of pros and cons. A lot of fault was found. The society finally wound up by telling me to vote like the gentleman here for this plan or for as good a plan as we can get, because we should have something and not put it off. I should like to suggest that if we adopt such a plan as this, a committee of general practitioners might be appointed, as a subcommittee, to figure out how we can get paid for everything we do and still sell it to the subscriber.

Dr. L. A. Coffin: Mr. Speaker and Members of the House of Delegates: First I should like to say as a member of the Legislative Committee I feel that to adopt a resolution as was proposed will delay this plan for two years. I don't think there is any question about it.

Second, I come from a county without a hospital. At present there are only two M.D.'s in the county who are able to work. We are twenty-five miles from the nearest hospital. I do not think this plan is exactly satisfactory to our county as written, but we have to have a plan to start. I believe this committee has given a lot of time to it and has done a good job. It seems to me that we can adopt this plan and then it can be changed later to take care of everybody.

Dr. H. E. Farnsworth: It seems to me that we should consider this plan a good deal the same as we started in the practice of medicine maybe twenty-five, thirty, thirty-five, or forty years ago. When you first opened your office you had about two chairs in your waiting room and one other little room and you had lots of room. That is the way with this plan. We must start at the bottom. I come from a county the same as some of the rest of you, a general practitioner in a small rural community. We had a meeting of our county and eight of the ten members were present and were very much in favor of this plan. I have no doubt that if this plan goes along it will be built up so as to include the necessary things that will benefit us general practitioners. We started the practice of medicine in a small way and this plan is going to start in a small way. As general practitioners, if we were successful and did good work our practice grew, and if this plan works as it has in other places, there is no doubt that it will grow and include the general medical care.

Dr. C. C. Hall: I think one statement was made which we ought to consider quite carefully and that is that Iowa is a rural state. Iowa is a rural state from the standpoint of the number of products it makes, but if I am correct, almost 55 per cent of the people of the State of Iowa live in towns of 5,000 or more. I think I am correct in stating that 26 per cent of the people of the State of Iowa are engaged in some agricultural pursuit. I think you can find places in one block in Des Moines where more people live than in a whole township in a rural community, and if I would represent the people of my community I would say that this insurance plan we are plan-

ning will not go over at all. My people own their farms. They are well to do. There is a small percentage that would accept this, but I think this plan probably represents the interests of the people of the city.

The Speaker: Anyone else?

Dr. E. C. McClure: Mr. Speaker, some things have been brought out in the discussion. None who would oppose this plan has questioned the integrity of our committee or the amount of hard work they have done. Now we ought to go along with them. We cannot put it off and come back again. Somebody said that there are only two in his county and there are not very many in my county. We cannot afford to come up again. Now is the time to do something. If you don't like the plan you can quit after a while, but it is worth trying.

Dr. B. J. Dierker: Dr. Coffin has already spoken for our section of the state, but I did want to say one or two words. It seems to me that one of the important things and one of the things for which we have really gathered here is first of all, as the doctor said a little while ago, to avoid a more serious catastrophe. No one can have watched the trend of events in recent years and not see what is definitely coming and what is going to happen to us whether we like it or not, so that it behooves us to take this movement more or less into our own hands as much as we can.

Another very important thing that was said this morning was this: If we are going to adopt any plan, we must adopt a plan that is of benefit to the people. After all, the people of the United States are asking for something. They are asking for some form of medicine, whether it be socialized, an insurance setup, or whatever it is, that is feasible and will help them pay their bills. It seems to me that it has been the aim of this committee to accomplish that. They have tried to give us a plan, and regardless of the fact that it may not give this pair of shoes or that pair of shoes to this community or that community, is a little beyond the question as I see it. We have to take the state as a whole. Of course, the rural problem is very grave and it is important and they are going to get around to it, but they have been telling us time and again to set up insurance.

It isn't that we do not want to cover obstetrics in the home. We do want to cover it as much as we can but it is a hard part of insurance. My town of Fort Madison is not entirely a rural community. We have a good many factories and shops, and we have a certain amount of insurance that covers things of that kind. For instance, the Schaeffer Pen Company has a plan that pays surgical fees. It isn't a service plan. It is an indemnity plan, of course, but it has worked out satisfactorily. It has helped those people pay part of their costs.

Then we are near Des Moines County where they have a big ordnance plant, and where almost every employee comes in with a slip and says, "Doctor, I have so-and-so and I need an operation," whether it is hernia or whatever it is, but there is a pretty fair fee covering it. It has worked out fairly well. None of us exactly like it, but after all it has not worked out so badly. Every large industrial plant is now being covered. Even the railroads are asking for it.

It seems to me that the same thing was true of Blue Cross. It was full of holes. Many phases of that plan seemed all wrong to me in the beginning and to many of the men around me. When we talked it over with the men who set it up, we could see their side of it and we saw that they were doing a much better job than we at first gave them credit for.

If we are going to accomplish anything today we have to work together and we have to work with this committee because they are the men who have really done something for us and they are the men who are trying to do something for us. As far as Lee County is concerned, we are simply authorized to do whatever we see fit to do in the setting up of a plan.

The Speaker: Is there further discussion?

Dr. Woods: I want to endorse practically everything that Dr. Harken has said. The trouble is that there are too many counties in this state that are not like Clarke County, that have taken no action. They have sent their delegates down here and the delegates don't know whether to vote for or against the plan. Marshall County is going to vote for this plan and

that isn't the point. We are not against the plan, but what we want is a democratic expression from the whole State of Iowa. I don't agree with the doctor over here that this will be postponed for two years. If we pass this today, it is not legal until it is acted upon by the Legislature.

I brought the president of the county medical society down here today because I did not want to take all of this responsibility. They haven't had time in Marshall County to go into this. We are for the plan, but let's be sure that the great majority in the State of Iowa is for it.

Dr. S. W. Huston: I am a delegate from Henry County. In our county this question was referred to the Economics Committee with instruction to be advised by that committee. I was authorized to support this committee, which we think did a good piece of work, not perfect by a whole lot, but I was instructed to vote for the plan.

Dr. Fred L. Knowles: Mr. Speaker, it sounds to me as though everyone who came here came to adopt a plan. We don't know what that plan is. I think if we whittle it down it means that we came here to express our individual views relative to the details of this plan. If those details meet with our approval, then we are for the plan. I believe that the vote of this entire body is of far more value than going back to our individual counties and getting a vote of six or seven men.

Dr. J. H. Gasson: I am sorry to say, gentlemen, that I think there are doctors in the State of Iowa who, if you gave them two years to study it over, would not get to it then. This plan has been sent out for them to consider. I am sorry to say that my county instructed me to turn it down just for the little details that have been discussed here this afternoon. I never heard of any organization that was perfect to start. I personally am for it but my county said to say "no."

Dr. H. E. Nelson: I came here today with a minority report in my pocket to present to this House of Delegates, with objections to some parts of the plan. However, after I have been here and listened to the honest discussion, and have seen how sincere some of you men from rural communities are in your willingness to back it up and to give of your time, I am going to pigeon-hole it and I am going to depend upon the future to make it right with the physicians in the rural districts. I also hope that you can do this soon for the simple reason that when this plan is adopted and gets into action, there is going to be a big swarm of patients into our hospitals. We have two hospitals in our county and I know that they haven't the facilities to take care of these patients. Who is going to take care of them? If we rural men in the south end of the county have to take care of them, where are we?

Dr. Thornton: I feel that a great many of us who are here today don't need to worry very much about the plan, but I should like for Dr. Olsen to tell us the percentage of the men who are in the service, of the active members of this society who will be back here in years to come, that were for and against it.

Dr. Olsen: I don't believe that I can give you percentages on this. I think that we have enough, however, to probably give a rather good cross section of the feeling of the men in the service and in brief it is this: You men who are at home should protect our interests. We are fed up with regimentation such as we have even in the Army. We are glad to do our bit but we don't like this kind of medicine. We rely on you men at home to do the job and preserve the practice of medicine as we have known it, as we left it. I think with one exception that has been the feeling of everyone and there have been at least 50 or 60 letters. They have been favorable to the Society's taking some action along this line. Most of them have been favorable to the plan as presented. It would warm the cockles of your hearts to read those letters. We have sent them out quite generally. If you haven't seen them, get them and read them. I think that we would be doing violence to our men at the front if we did not do something in the matter.

Dr. E. A. Larsen: I have listened to these men and I want to suggest that in order to appease the men in rural practice where there are no hospitals, let's take our surgical cuts as we will have to do, at first, but before we try to obtain 100 per cent fees for surgery let's hold back a certain amount from the



surgical fees and earmark them for medical funds, to be at a later date appropriated for certain medical ailments to take care of these rural cases. Let us hope that some day we can have a plan under which surgeons and rural practitioners are remunerated properly, but let's take care of the country physician before we obtain 100 per cent payment for the surgeon.

The Speaker: Are you ready for the question?

Dr. Luse: I wish Dr. Olsen would explain to the delegates what he did to me about the Farm Bureau health organization. I think that will answer a lot of the questions of the rural men.

Dr. Olsen: First I want to say that the committee has been very sympathetic with the position that is taken by many of the men here. This is a rural state. There should be some way of taking care of the rural situation. At the present time we do not know of any way. We do want to take care of a certain amount of obstetrics, and if you could see the original contract, it would show that we have in mind doing something like that. In general I might say that we can take care of the controlled illnesses pretty well, but the trouble comes in office and home calls over which there is no control. In hospitalized cases there is control, and that is a distinguishing mark I think in this whole matter. If there were some way in which we could control the office and home calls, I think there might be a little approach made at this time. Right now I don't know of any. We feel, however, that this program is simply a beginning. Nothing else. Don't look upon it as anything else. It will undergo an evolution, and we will be adding, we hope, one thing after another as time goes on.

Now the question that was raised by Dr. Luse was this: I happen to be on the Board of the Blue Cross Plan. About six or eight months ago we started a program for breaking into the rural communities. We have organized in a few of the counties what we call our Health Improvement Associations, which are built around the Farm Bureau Organization. Persons who are not members of the Farm Bureau pay, I think, 25 or 50 cents for a membership so that their premiums can be paid through the Farm Bureau. Polk County has been organized. We have between 300 and 400 families. Dallas County has been organized. I do not know how many counties have been taken in, but it is a movement that will go along rapidly.

It seems to me that when they get organized they are going to be a leaven in their communities in getting facilities, hospital or what not. Maybe there will be some way of working out a program for a certain amount of limited care in rural communities. I am not prepared to say at this time.

Of course, what we must do above everything is to keep this plan solvent. It just must be kept solvent.

The question was raised this morning, "What do you do about dependents? Do you give them the same benefits as you do the individual who subscribes?" Yes, we do and this is a big burden on the plan. Seventy per cent of the benefits go to the dependents, not to the subscriber himself. You can see what a burden that can be, particularly with large families.

As I said this morning, 60 per cent of the surgery in the plan in Michigan is being done by the general practitioner. He isn't left out of the picture altogether.

Dr. Woods: I should like to ask Dr. Olsen, assuming that this plan is adopted this afternoon, what about the legality of it? How soon would we operate? What can we do until the Legislature acts?

Dr. Olsen: We can do nothing that is not in harmony with the decision that is made by this body today. We can perfect our plan and have it ready to go, and I hope that Dr. Billingsley can have it passed in the Legislature and that we may have the privilege of getting under way right after the enactment of the legislation so that we will not have to wait the usual six months which are ordinarily required.

Dr. Billingsley: We do not have to wait until the first of July if the Legislative Committee gets the bill through properly.

Calls for the question.

The Speaker: Would you like to have the question read?

Miss McCord read the question.

The Speaker: You have heard the question. All

those in favor please rise; those opposed. *The motion is lost.*

Dr. Woods: Now, Mr. Speaker, I move that we adopt the plan right now.

The motion was *seconded* by several members.

The Speaker: It is open for discussion.

Dr. Maxwell: Mr. Speaker, there are unquestionably certain changes that will have to be made in this plan to meet legal requirements, to meet the requirements of the Insurance Commissioner, and before that motion is passed, I move that it be amended that the plan as suggested be passed with such changes as the Board of Directors may find necessary to meet legal requirements.

Dr. Boice: I *second* the amendment.

The Speaker: You have heard the amendment. You are now voting on the amendment. Would you like to have it read?

The amendment was read.

The Speaker: Are you ready for the question? All those in favor signify by saying "aye"; contrary the same sign. *The amendment is carried.* You are now voting on the original motion of Dr. Woods.

Dr. Suchomel: May I ask for information? I have a list of questions concerning the fee schedule. What is the wish of the committee? How are these to be submitted? One concerns x-ray, one concerns pathologists, and another concerns a general man.

The Speaker: There is a motion before the House. Are you ready for the vote? All those in favor of Dr. Woods' motion signify by saying "aye"; contrary the same sign. *The motion is carried.*

In the original report of the committee, a second committee is suggested to rearrange the fee schedule. Do you wish to adopt that or is that included in this motion?

Dr. O. J. Fay: I move that the recommendation be accepted.

The motion was *seconded*.

The Speaker: There is a motion before the House. We will read the suggestion made by the committee.

Miss McCord: "It is the recommendation of your subcommittee that the Speaker of this House of Delegates appoint a special committee to determine what a fair fee schedule should be for the plan finally adopted, and that the personnel of that committee should consist of a surgeon, a gynecologist, an internist, a pediatrician, an orthopedist, a urologist, a roentgenologist, an anesthetist, an eye, ear, nose and throat man, a pathologist and a general practitioner."

Dr. Hennessey: There is no obstetrician in that list? Might I suggest we add one?

The Speaker: Will you accept it?

Dr. Fay: Yes, I will.

Dr. Hagen: With regard to that motion, I am wondering, if you have all specialists on that committee with the exception of one general practitioner, whether or not it will be in balance.

The Speaker: Both Dr. Fay who made the motion, and the second, have accepted Dr. Hennessey's suggestion to include an obstetrician on the committee.

Miss McCord: The proposal in the original plan as drawn up stated that obstetrics would be taken care of in the hospital except in circumstances beyond the patient's control, which means that if there is no hospital available, and delivery is made in the home, or if it is not possible to get the patient to the hospital in time, the delivery will be paid for wherever it occurs.

The Speaker: Is that clear? Are there any other questions on this now? Are you ready for the question? All those in favor signify by saying "aye"; contrary. *The motion is carried.*

What is your pleasure, gentlemen? Do you have any questions to ask? Before we adjourn, gentlemen, we should hear from the President of the Michigan State Society. We should like to hear from him.

Dr. Brunk: Members of the Iowa State Medical Society: First of all I want to bring you greetings from the profession of Michigan, and I am very glad to be here this afternoon but have very little to say. You have done the thing, of course, that we in Michigan were anxious to see you do. We are very anxious to see this movement spread throughout the country, the reason being that we want to see the control of medicine kept in the hands of the medical profession.

Then again I believe you will all agree that the medical profession over the years has perhaps declined just a little in the estimation of the public. I might say that we have been in just a little bad repute, and if the medical profession can take control of this situation and show the public that it is sufficiently interested in its problems to be willing to perform a social service for them, we will reinstate ourselves in the eyes of the public.

I base my conclusions very largely on some surveys that have been made recently. About two years ago, as you know, the Fortune survey indicated that about 76 per cent of the people wanted government medicine in this country. A year later the Gallup poll indicated that about 59 per cent wanted it. About six weeks ago we completed a survey in Michigan, and our survey indicates that about 39 per cent now want government medicine. By far the larger proportion want it controlled and operated by the medical profession. That is very gratifying, indeed. We are, of course, as you know, an industrial state, especially in Detroit, and we have large union organizations there. Perhaps one of the most gratifying things of all was that less than 1 per cent as shown in our survey wanted organized labor to set up a plan and operate it. They preferred to have it in the hands of the medical profession.

We of Michigan have perhaps made an experiment, rather an expensive one to begin with, but we have come out all right, that is, as far as industrial centers are concerned. We are more than glad to know now that you in Iowa are willing to make an experiment in the rural districts, and if this is once completed, I think it will not be long until it will spread all over the country and the whole movement will be greatly benefited.

There is, of course, this advantage in having it in the hands of the medical profession and that is that you can always control it. You can change it when you want to change it. If it is controlled by the government through laws that might be passed, then it will be impossible, of course, to change it and the medical profession will have very little to say. I think the same might be true if it were controlled by commercial organizations. I think that is about all I have to say. I am very happy to be here and thank you very much.

Dr. Dewey: I think this Society has shown by its action that it approves of the work of Dr. Olsen and his committee, but we haven't adopted a resolution to that effect. I move such a resolution, and that it be a rising vote of thanks.

The motion was seconded by several members.

The Speaker: You have heard the motion. All those in favor please rise.

Those present arose and applauded.

The Speaker: Before we adjourn in just a few minutes, gentlemen, I should like to hear from Mr. Hendricks, Executive Secretary of the Indiana State Medical Society and a very close personal friend of most of us who have been working a good many years on this.

Mr. Hendricks: Dr. Bernard and Gentlemen of the House of Delegates of the Iowa State Medical Society: Anything, of course, that I would have to say at this time would be worse than anti-climax. It would be a flop, but I do want to tell you what a great privilege it has been to be here today and to listen to what you have had to say. I feel certain that when word of the action that you took here gets back to Indiana, also in view of the fact that two weeks ago we had Dr. Olsen with us, it will mean a great deal to us in Indiana and it will have a great effect. Like you and like many other states of the country, we have been in the midst of the No. 1 theme song of the Medical Insurance Hit Parade, "Is you is or is you ain't," and we in Indiana aren't certain yet whether we are "is" or "ain't." But we are going to have Dr. Brunk with us again when we have a special meeting of our House of Delegates on November 12. He is going to be there with us and we should like to import a couple of ringers from here if we may.

There is one more thing that I should like to say

and that is this: That it has meant a great deal to be here at this meeting and to hear Dr. Bierring. One statement Dr. Bierring made means a great deal to me personally, and that is the fact that Dr. Mountin, of the United States Public Health Service, is no longer with us but has gone to India for three years.

It may be that with his influence away from Washington you will see a changed attitude in the United States Public Health Service.

In closing I merely want to say that I bring you felicitations and greetings, to you who measure your corn by its height from your Hoosier brethren who measure it by the gallon.

The Speaker: Thank you.

Dr. Marker: Mr. Speaker, I know you are anxious to get home, but there is a question that came to my mind this morning. I put it to Dr. Brunk and he answered it for me and I want him to answer it for you people. Dr. Olsen told us that when they started out with a full coverage policy they lost \$500,000. That is an immense sum of money. If that were \$500,000 in a million, it would be too bad, if it were \$500,000 in a couple of million, it would be bad yet, but I should like for Dr. Brunk to tell us how much the turnover was when they lost the \$500,000 because it illustrates to me the fact that this committee can give greater coverage than it has contemplated and satisfy these men in the rural communities.

Dr. Brunk: I think we in Michigan feel that at the present time we are able or perhaps will be able to give a larger coverage and we are encouraged due to the fact that after having run into the hole \$501,000, we have pulled out and are now in the black in every way. I suppose that the executive committee of the organization to begin with was a bunch of very reckless individuals. It allowed itself to get into the hole to the extent of a half million dollars with nothing but faith to back it up. The total amount in round numbers was about \$10,000,000. We have taken in about \$10,000,000 or a little better than that, and returned to the physicians in a period of five years a little better than \$9,000,000, so that the deficit compared with the entire amount was a half million compared with about ten million intake.

The Speaker: Anything else? I will entertain a motion to adjourn.

Dr. Hagen: I move that we adjourn.

The motion was seconded and the meeting adjourned at three o'clock.

## MINUTES OF MEETINGS OF STATE SOCIETY OFFICERS AND COMMITTEES

### Meeting of the Board of Trustees November 1, 1944

The Board of Trustees of the Iowa State Medical Society met in the central office Wednesday morning, November 1, 1944, at 8:30 a. m. with all three trustees present (Doctors Oliver J. Fay, John I. Marker, and Walter A. Sternberg).

Business transacted was as follows: Minutes were read and approved and bills were authorized; cooperation with Iowa Hospital Association for exhibits at annual meeting was approved; a new member of the Medical Economics Committee was appointed (Dr. B. F. Wolverton of Cedar Rapids); necessary expenses of delegates to a secretaries' conference and North Central Conference were authorized; and an appropriation of \$6.00 a member for Iowa Medical Service was approved contingent upon approval of the plan by the House of Delegates. Meeting adjourned at 9:30 a. m.



# Roster of Iowa Physicians in Military Service

As of November 25, 1944

## Adair County

Cornell, D. D., Greenfield (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
Gantz, A. J., Greenfield (APO 951, San Francisco, Cal.) ..... Capt., A.U.S.

## Adams County

Bain, C. L., Corning (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Willett, W. J., Carbon (APO 230, New York, N. Y.) ..... Capt., A.U.S.

## Allamakee County

Hogan, P. W., Waukon  
Ivens, M. H., Waukon (Camp Shelby, La.)  
Kiesau, M. F., Postville (Jefferson Barracks, Mo.) ..... Major, A.U.S.  
Rominger, C. R., Waukon (Camp Claihorne, La.) ..... A.U.S.

## Appanoose County

Condon, F. J., Centerville (Owensboro, Ky.) ..... Major, U.S.P.H.S.  
Edwards, R. R., Centerville (Camp Ellis, Ill.) ..... Capt., A.U.S.  
Huston, M. D., Centerville (Camp Bowie, Texas) ..... Capt., A.U.S.

## Audubon County

Koehne, F. D., Audubon (APO 520, New York, N. Y.) ..... Major, A.U.S.

## Benton County

Koontz, L. W., Vinton (APO 7, San Francisco, Cal.) ..... Capt., A.U.S.  
Senfeld, Sidney, Belle Plaine

## Black Hawk County

Bickley, D. W., Waterloo (APO New York, N. Y.) ..... Capt., A.U.S.  
Bickley, J. W., Waterloo (APO 956, San Francisco, Cal.) ..... Capt., A.U.S.  
Butts, J. H., Waterloo (Galveston, Texas) ..... Comdr., U.S.N.R.  
Cooper, C. N., Waterloo (Ottumwa, Iowa) ..... Lt. Comdr., U.S.N.R.  
Ericsson, M. G., Cedar Falls (Camp Berkeley, Tex.) ..... Capt., A.U.S.  
Hartman, H. J., Waterloo (APO 33, San Francisco, Cal.) ..... Capt., A.U.S.  
Henderson, L. J., Cedar Falls (Camp Roberts, Cal.) ..... Capt., A.U.S.  
Hoyt, C. N., Cedar Falls (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
Ludwick, A. L., Waterloo (Abilene, Texas) ..... Major, A.U.S.  
Marquis, F. M., Waterloo (APO 923, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Keefe, P. T., Waterloo (APO 79, New York, N. Y.) ..... Capt., A.U.S.  
Paige, R. T., LaPorte City (Banana River, Fla.) ..... Comdr., U.S.N.R.  
Rohlf, E. L., Jr., Waterloo (APO 230, New York, N. Y.) ..... Major, A.U.S.  
Seibert, C. W., Waterloo (Colorado Springs, Colo.) ..... Major, A.U.S.  
Smith, E. E., Waterloo (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
Smith, R. I., Waterloo (Milwaukee, Wis.) ..... Capt., A.U.S.  
Smith, R. G., Cedar Falls (APO 512, New York, N. Y.) ..... Major, A.U.S.  
Trunnell, T. L., Waterloo (Parris Island, S. Car.) ..... Lt. U.S.N.R.

## Boone County

Brewster, E. S., Boone (APO 446, New York, N. Y.) ..... Major, A.U.S.  
Healy, M. J., Boone (Camp Chaffee, Ark.) ..... Capt., A.U.S.  
Shane, R. S., Pilot Mound (Des Moines, Ia.) ..... Lt. Col., A.U.S.

## Bremer County

Blum, O. S., Waverly (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Rathe, H. W., Waverly (APO 209, New York, N. Y.) ..... Major, A.U.S.  
Shaw, R. E., Waverly (Long Beach, Cal.) ..... 1st Lt., A.U.S.

## Buchanan County

Barton, J. C., Independence (St. Paul, Minn.) ..... Lt. Col., A.U.S.  
Hersey, N. L., Independence (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Leehey, P. J., Independence (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
Loeck, J. F., Aurora (APO 9787, New York, N. Y.) ..... Capt., A.U.S.

## Buena Vista County

Almquist, R. E., Albert City (APO 43, San Francisco, Cal.) ..... Capt., A.U.S.  
Brecher, P. W., Storm Lake (Camp Adair, Ore.) ..... Lt. Col., A.U.S.  
Hansen, R. R., Storm Lake (Farragut, Idaho) ..... Lt., U.S.N.R.  
Mailhard, R. E., Storm Lake (APO 254, New York, N. Y.) ..... Lt. Col., A.U.S.  
Shope, C. D., Storm Lake (Fort Des Moines, Ia.) ..... Capt., A.U.S.  
Witte, H. J., Marathon (Fort Crook, Nebr.) ..... Major, A.U.S.

## Butler County

Andersen, B. V., Greene (Fleet PO, Seattle, Wash.) ..... Lt., U.S.N.R.  
James, R. A., Allison (Mare Island, Cal.) ..... 1st Lt., A.U.S.  
Rofls, F. O., Parkersburg (Springfield, Mo.) ..... 1st Lt., A.U.S.

## Calhoun County

Grinley, A. V., Rockwell City (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
Hobart, F. W., Lake City (Camp Grant, Ill.) ..... Capt., A.U.S.  
McVay, M. J., Lake City (Waco, Texas) ..... Capt., A.U.S.

Peek, L. H., Lake City (Jefferson Barracks, Mo.) ..... Capt., A.U.S.  
Stevenson, W. W., Rockwell City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
Weyer, J. J., Lohrville (APO 465, New York, N. Y.) ..... Capt., A.U.S.

## Carroll County

Anneberg, A. R., Carroll (Camp Berkeley, Texas) ..... A.U.S.  
Anneberg, W. A., Carroll (APO 367, New York, N. Y.) ..... Capt., A.U.S.  
Cochran, J. L., Carroll (Gulfport, Miss.) ..... Lt., U.S.N.R.  
Cross, D. L., Coon Rapids (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
Freedland, Maurice, Coon Rapids  
Morrison, J. R., Carroll (Ft. Dix, N. J.) ..... Capt., A.U.S.  
Morrison, R. B., Carroll (APO 634, New York, N. Y.) ..... Capt., A.U.S.  
Pascoe, P. L., Carroll (Bowman Field, Ky.) ..... Capt., A.U.S.  
Scannell, R. C., Carroll (Denver, Colo.) ..... A.U.S.  
Tindall, R. N., Coon Rapids (Hines, Ill.) ..... Major, A.U.S.  
Wyatt, M. R., Manning (De Ridder, La.) ..... Capt., A.U.S.

## Cass County

Egbert, D. S., Atlantic (APO 218, New York, N. Y.) ..... Major, A.U.S.  
Needles, R. M., Atlantic (APO 131, New York, N. Y.) ..... Capt., A.U.S.  
Petersen, M. T., Atlantic (Topeka, Kan.) ..... Capt., A.U.S.  
Schiff, Joseph, Anita (Walla Walla, Wash.) ..... 1st Lt., A.U.S.

## Cedar County

Laughlin, R. M., Tipton (San Diego, Cal.) ..... Lt., U.S.N.R.  
Mosher, M. L., West Branch (APO 560, New York, N. Y.) ..... Capt., A.U.S.  
O'Neal, H. E., Tipton (Camp Maxey, Texas) ..... Lt. Col., A.U.S.

## Cerro Gordo County

Adams, C. O., Mason City (Vancouver, Wash.) ..... Capt., A.U.S.  
Egloff, W. C., Mason City (Chandler, Ariz.) ..... Capt., A.U.S.  
Flickinger, R. R., Mason City (Tuscaloosa, Ala.) ..... Capt., A.U.S.  
Hale, A. E., Dougherty (Atlanta, Ga.) ..... Capt., A.U.S.  
Harris, R. H., Mason City (Dyersburg, Tenn.) ..... Capt., A.U.S.  
Harrison, G. E., Mason City (APO 365, New York, N. Y.) ..... Col., A.U.S.  
Houlahan, J. E., Mason City (APO 838, New Orleans, La.) ..... Capt., A.U.S.  
Lannon, J. W., Clear Lake (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
Long, D. L., Mason City (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
Morgan, R. W., Mason City ..... 1st Lt., A.U.S.  
Marinos, H. G., Mason City (APO 25, San Francisco, Cal.) ..... Capt., A.U.S.  
Sternhill, Irving, Mason City (Ayer, Mass.) ..... Capt., A.U.S.

## Cherokee County

Bullock, G. D., Washta (Camp Claiborne, La.) ..... Capt., A.U.S.  
Ihle, C. W., Jr., Cleghorn (APO 6, San Francisco, Cal.) ..... Major, A.U.S.  
Swift, C. H., Jr., Marcus (APO 201, San Francisco, Cal.) ..... Capt., A.U.S.

## Chickasaw County

Caulfield, J. D., New Hampton (APO 178, New York, N. Y.) ..... Major, A.U.S.  
Murphey, A. L., Fredericksburg (APO 3470, San Francisco, Cal.) ..... Capt., A.U.S.  
O'Connor, E. C., New Hampton (Redmond, Ore.) ..... Capt., A.U.S.  
Richmond, P. C., New Hampton (APO 88, New York, N. Y.) ..... Major, A.U.S.

## Clarke County

Armitage, G. I., Murray (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.

## Clin County

Edington, F. D., Spencer (Fort Devens, Mass.) ..... Col., A.U.S.  
Jones, C. C., Spencer (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
King, D. H., Spencer (Peterson Field, Colo.) ..... Capt., A.U.S.

## Clayton County

Anderson, H. M., Strawberry Point (Camp Crowder, Mo.) ..... 1st Lt., A.U.S.  
Glesne, O. G., Monona (Knoxville, Iowa) ..... Capt., A.U.S.  
Rhombert, E. B., Guttenberg (APO 584, New York, N. Y.) ..... Capt., A.U.S.

## Clinton County

Amesbury, H. A., Clinton (Vancouver, Wash.) ..... Capt., A.U.S.  
Burke, J. C., Clinton (Great Bend, Kan.) ..... A.U.S.  
Ellison, G. M., Clinton (APO 9030, New York, N. Y.) ..... Capt., A.U.S.  
Hill, D. E., Clinton (APO 9787, New York, N. Y.) ..... Capt., A.U.S.  
King, R. C., Clinton (APO 403, New York, N. Y.) ..... Capt., A.U.S.

Lenaghan, R. T., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Norment, J. E., Clinton (Washington, D. C.) ..... Lt. Comdr., U.S.N.R.  
 Riedesel, E. V., Wheatland (Fort Douglas, Utah)  
 Scanlan, G. C., DeWitt (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Snyder, D. C., De Witt  
 Speigel, I. J., Clinton (Galesburg, Ill.) ..... Capt., A.U.S.  
 Van Epps, E. F., Clinton (APO 9921, New York, N. Y.) ..... Capt., A.U.S.  
 Waggoner, C. V., Clinton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Wells, L. L., Clinton (APO 17172 New York, N. Y.) ..... Capt., A.U.S.

#### Crawford County

Fee, C. H., Denison (APO 696, New York, N. Y.) ..... Major, A.U.S.  
 Grau, A. H., Denison, (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maire, E. J., Vail (Camp Howze, Tex.) ..... Capt., A.U.S.  
 Wetrich, M. F., Manilla (APO 986, Seattle, Wash.) ..... Capt., A.U.S.

#### Dallas-Guthrie Counties

Butterfield, E. T., Dallas Center (Hines, Ill.) ..... 1st Lt., A.U.S.  
 Byrnes, A. W., Guthrie Center (Fort Custer, Mich.) ..... Major, A.U.S.  
 Fail, C. S., Adel (Pacific Beach, Wash.) ..... Lt., U.S.N.R.  
 Margolin, J. M., Perry (APO 5816, New York, N. Y.) ..... Capt., A.U.S.  
 McGilvra, R. I., Guthrie Center (Ama, Iowa) ..... Lt., U.S.N.R.  
 Mullmann, A. J., Adel (APO 17558, San Francisco, Cal.) ..... Capt., A.U.S.  
 Nicoll, C. A., Panora (APO 17351, New York, N. Y.) ..... Capt., A.U.S.  
 Osborn, C. R., Dexter (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, D. W., Guthrie Center (APO 2, New York, N. Y.) ..... Capt., A.U.S.  
 Wilke, F. A., Woodward ..... Capt., A.U.S.

#### Davis County

Fenton, C. D., Bloomfield (APO 5253, New York, N. Y.) ..... Capt., A.U.S.  
 Gilfillan, G. W., Bloomfield (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Decatur County

Gamet, E. E., Lamoni (APO New York, N. Y.) ..... Capt., A.U.S.

#### Delaware County

Baumgarten, Oscar, Earlville (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Clark, R. E., Manchester (APO 419, New York, N. Y.) ..... Capt., A.U.S.

#### Des Moines County

Eigenfeld, M. L., Burlington (Cleveland, Ohio) ..... 1st Lt., A.U.S.  
 Heitzman, P. O., Burlington (Fort Baker, Cal.) ..... Capt., A.U.S.  
 Jenkins, G. D., Burlington (West Point, N. Y.) ..... Lt. Col., A.U.S.  
 Lohmann, C. J., Burlington (APO 708, San Francisco, Cal.) ..... Major, A.U.S.  
 McKitterick, J. C., Burlington (Hamilton, R. I.) ..... Comdr., U.S.N.R.  
 Moerke, R. F., Burlington (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sage, E. C., Burlington (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Dickinson County

Buchanan, J. J., Milford (Santa Ana, Cal.) ..... Lt., U.S.N.R.  
 Henning, G. G., Milford (APO 96, San Francisco, Cal.) ..... Major, A.U.S.  
 Nicholson, C. G., Spirit Lake (Sawtelle, Cal.) ..... Capt., A.U.S.  
 Rodawig, D. F., Spirit Lake ..... Major, A.U.S.

#### Dubuque County

Anderson, E. E., Dubuque (Bradley Field, Conn.) ..... Capt., A.U.S.  
 Beddoes, M. G., Cascade (APO 709, San Francisco, Cal.) ..... Capt., A.U.S.  
 Conzett, D. C., Dubuque (APO 887, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Cunningham, J. C., Dubuque (Fairfield, Ohio) ..... Capt., A.U.S.  
 Edstrom, Henry, Dubuque (APO 645, New York, N. Y.) ..... Major, A.U.S.  
 Entringer, A. J., Dubuque (APO 41, San Francisco, Cal.) ..... Capt., A.U.S.  
 Hall, C. B., Dubuque (Camp Shelby, Miss.) ..... Capt., A.U.S.  
 Knoll, A. H., Dubuque (San Francisco, Cal.) ..... Major, A.U.S.  
 Langford, W. R., Epworth (Miami Beach, Fla.) ..... Capt., A.U.S.  
 Lavery, H. B., Dubuque (Washington, D. C.) ..... Lt. Col., A.U.S.  
 Leik, D. W., Dubuque (Wichita Falls, Tex.) ..... Capt., A.U.S.  
 Mueller, J. J., Dubuque (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Olson, P. F., Dubuque (Mare Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Painter, R. C., Dubuque (Salt Lake City, Utah) ..... Lt., U.S.N.R.  
 Paulus, J. W., Dubuque (APO 115, New York, N. Y.) ..... Capt., A.U.S.  
 Plankers, A. G., Dubuque (APO 363 New York, N. Y.) ..... Major, A.U.S.  
 Quinn, E. P., Dubuque (Brentwood, L. I.) ..... Major, A.U.S.  
 Scharle, Theodore, Dubuque (APO Seattle, Wash.) ..... Capt., A.U.S.  
 Schueller, C. J., Dubuque (APO 758, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Sharpe, D. C., Dubuque (APO 5541, New York, N. Y.) ..... Major, A.U.S.  
 Smith, C. W., Dubuque (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Steffens, L. F., Dubuque (Camp Chaffee, Ark.) ..... Lt. Col., A.U.S.  
 Straub, J. J., Dubuque (Corpus Christi, Texas) ..... Lt., U.S.N.R.  
 Ward, D. F., Dubuque (Great Lakes, Ill.) ..... Lt. Comdr., U.S.N.R.

#### Emmet County

Clark, J. P., Estherville (APO New York, N. Y.) ..... Capt., A.U.S.  
 Collins, L. F., Estherville (Camp Dodge, Iowa) ..... A.U.S.  
 Miller, O. H., Estherville (Seattle, Wash.) ..... Lt. Comdr., U.S.N.R.

#### Fayette County

Gallagher, J. P., Oelwein (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Henderson, W. B., Oelwein (St. Louis, Mo.) ..... Lt. Col., A.U.S.  
 Sulzbach, J. F., Oelwein  
 Walsh, W. E., Hawkeye (Port Chicago, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Floyd County

Baltzell, W. C., Charles City (APO 2, New York, N. Y.) ..... Major, A.U.S.  
 Flater, N. C., Floyd (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
 Knight, R. A., Rockford (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Mackie, D. G., Charles City (APO 493, New York, N. Y.) ..... Capt., A.U.S.  
 Miner, J. B., Jr., Charles City (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Tolliver, H. A., Charles City (APO 91, New York, N. Y.) ..... Capt., A.U.S.

#### Franklin County

Byers, W. L., Sheffield (Jefferson Barracks, Mo.) ..... 1st Lt., A.U.S.  
 Hedgecock, L. E., Hampton (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Randall, W. L., Hampton (Oceanside, Cal.) ..... Lt., U.S.N.R.  
 Walton, S. G., Hampton (APO New York, N. Y.) ..... Capt., A.U.S.

#### Fremont County

Kerr, W. H., Hamburg (Camp Phillips, Kan.) ..... Capt., A.U.S.  
 Marrs, W. D., Tabor (Ardmore, Okla.) ..... Capt., A.U.S.  
 Powell, R. A., Farragut (Great Lakes, Ill.) ..... Lt. (jg), U.S.N.R.  
 Wanamaker, A. R., Hamburg (APO 939, Seattle, Wash.) ..... Capt., A.U.S.

#### Greene County

Cartwright, F. P., Grand Junction (APO 511, New York, N. Y.) ..... Capt., A.U.S.  
 Castles, W. A., Rippey (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Hanson, L. C., Jefferson (APO 728, New York, N. Y.) ..... Capt., A.U.S.  
 Jongewaard, A. J., Jefferson (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Limburg, J. I., Jr., Jefferson (APO 503, San Francisco, Cal.) ..... Major, A.U.S.  
 Lohr, P. E., Churdan (Cedar Falls, Iowa) ..... Lt., U.S.N.R.

#### Grundy County

Cullison, R. M., Dike (Fort Howard, Md.) ..... Major, A.U.S.  
 Rose, J. E., Grundy Center (Des Moines, Iowa) ..... Lt. Comdr., U.S.N.R.

#### Hamilton County

Buxton, O. C., Webster City (APO 9921, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Howar, B. F., Jewell (APO 514, New York, N. Y.) ..... Major, A.U.S.  
 James, D. W., Kamrar (APO 782, New York, N. Y.) ..... Capt., A.U.S.  
 Lewis, W. B., Webster City (APO 383, New York, N. Y.) ..... Major, A.U.S.  
 Mooney, F. P., Jewell (London, England) ..... Capt., R.A.M.C.  
 Paschal, G. A., Williams (Camp Barkeley, Texas) ..... Capt., A.U.S.  
 Patterson, R. A., Webster City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Ptacek, J. L., Webster City (APO 12845 G, New York, N. Y.) ..... Capt., A.U.S.  
 Schrader, M. A., Webster City (Topeka, Kan.) ..... 1st Lt., A.U.S.  
 Thompson, E. D., Webster City (Biloxi, Miss.) ..... Capt., A.U.S.

#### Hancock-Winnebagos Counties

Dolmage, G. H., Buffalo Center (Nashville, Tenn.) ..... Capt., A.U.S.  
 Dulmes, A. H., Klemme (APO 1778, New York, N. Y.) ..... Capt., A.U.S.  
 Eller, L. W., Kanawha (APO 302, New York, N. Y.) ..... Capt., A.U.S.  
 Irish, T. J., Forest City (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Shaw, D. F., Britt (Delhart, Tex.) ..... Major, A.U.S.  
 Thomas, C. W., Forest City (Camp Crowder, Mo.) ..... Capt., A.U.S.

#### Hardin County

Burgess, A. W., Iowa Falls (Jacksonville, Fla.) ..... Lt., U.S.N.R.  
 Houlihan, F. W., Ackley (APO 860, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Jansonius, J. W., Eldora (APO 4834, New York, N. Y.) ..... Capt., A.U.S.  
 Johnson, R. J., Iowa Falls (APO 514, New York, N. Y.) ..... Capt., A.U.S.  
 Johnson, W. A., Alden (Orlando, Fla.) ..... Capt., A.U.S.  
 Shurts, J. J., Eldora (Camp Roberts, Cal.) ..... 1st Lt., A.U.S.  
 Steenrod, E. J., Iowa Falls (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Todd, V. S., Eldora (APO 9641, San Francisco, Cal.) ..... Capt., A.U.S.

#### Harrison County

Bergstrom, A. C., Missouri Valley (Ft. Ord, Cal.) ..... Capt., A.U.S.  
 Burbridge, G. E., Logan (APO 511, New York, N. Y.) ..... Major, A.U.S.  
 Byrnes, C. W., Dunlap (APO 980, Seattle, Wash.) ..... Capt., A.U.S.  
 Heise, C. A., Jr., Missouri Valley (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Tamisiea, F. X., Missouri Valley (APO 562, New York, N. Y.) ..... Capt., A.U.S.

#### Henry County

Brown, W. B., Mount Pleasant (APO 571, New York, N. Y.) ..... Major, A.U.S.



Dwankowski, Carl, Mt. Pleasant (APO 511, New York, N. Y.).....Capt., A.U.S.  
 Gloeckler, B. B., Mount Pleasant (APO 9768, New York, N. Y.).....Capt., A.U.S.  
 Hartley, B. D., Mount Pleasant (APO 17130, New York, N. Y.).....Capt., A.U.S.  
 Megorden, W. H., Mount Pleasant (Ogden, Utah).....Capt., A.U.S.  
 Ristine, L. P., Mount Pleasant (APO 9648, New York, N. Y.).....Major, A.U.S.

#### Howard County

Buresh, Abner, Lime Springs (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Nierling, P. A., Cresco (APO 43, San Francisco, Cal.).....Capt., A.U.S.

#### Humboldt County

Arent, A. S., Humboldt (Stockton, Cal.).....Capt., A.U.S.  
 Coddington, J. H., Humboldt (Oklahoma City, Okla.).....Capt., A.U.S.

#### Ida County

Dressler, J. B., Ida Grove (APO 713, Unit 2, San Francisco, Cal.).....Capt., A.U.S.  
 Martin, J. W., Holstein (Seymour, Ind.).....Capt., A.U.S.

#### Iowa County

McDaniel, J. D., Marengo (Fort Ord, Cal.).....Capt., A.U.S.  
 Miller, D. F., Williamsburg (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.

#### Jackson County

Swift, F. J., Jr., Maquoketa (APO 652, New York, N. Y.).....Major, A.U.S.

#### Jasper County

Doake, Clarke, Newton.....1st Lt., A.U.S.  
 Minkel, R. M., Newton (APO New York, N. Y.).....Major, A.U.S.  
 Ritchey, S. J., Newton.....Major, A.U.S.

#### Jefferson County

Castell, J. W., Fairfield (APO 9907, New York, N. Y.).....Capt., A.U.S.  
 Frey, Harry, Fairfield (Norfolk, Va.).....Lt. Comdr., U.S.N.R.  
 Gittler, Ludwig, Fairfield (APO 1001, New York, N. Y.).....Lt. Col., A.U.S.  
 Graber, H. E., Fairfield Galesburg, Ill.....Major, A.U.S.  
 Taylor, I. C., Fairfield (Washington, D. C.).....1st Lt., A.U.S.

#### Johnson County

Agnew, J. W., Iowa City (Jefferson Barracks, Mo.).....Capt., A.U.S.  
 Albert, S. M., Iowa City (Camp White, Ore.).....1st Lt., A.U.S.  
 Allen, J. H., Iowa City (Scott Field, Ill.).....Major, A.U.S.  
 Anderson, E. N., Iowa City (APO 647, New York, N. Y.).....Major, A.U.S.  
 Boyd, E. J., Iowa City (Tampa, Fla.).....Capt., A.U.S.  
 Brinkhouse, K. M., Iowa City (APO 4672, San Francisco, Cal.).....Lt. Col., A.U.S.  
 Bunge, R. G., Iowa City (Biloxi, Miss.).....1st Lt., A.U.S.  
 Callahan, G. D., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Coburn, F. E., Iowa City (Toronto, Canada).....Capt., R.C.A.  
 Cooper, W. K., Iowa City (Mitchell Field, N. Y.).....Capt., A.U.S.  
 Crowell, E. A., Iowa City (Fl. Geo. Wright, Wash.).....Capt., A.U.S.  
 Diddle, A. W., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Dörner, R. A., Iowa City (APO 534, New York, N. Y.).....Capt., A.U.S.  
 Elmquist, H. S., Iowa City (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Emmons, M. B., Iowa City (Abilene, Texas).....Capt., A.U.S.  
 Flax, Ellis, Iowa City (APO 5833, New York, N. Y.).....1st Lt., A.U.S.  
 Flynn, J. E., Iowa City (Hot Springs, Ark.).....Major, A.U.S.  
 Fourt, A. S., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.  
 Francis, N. L., Iowa City (Annapolis, Md.).....Lt. (jg), U.S.N.R.  
 Galinsky, L. J., Oakdale (Camp Crowder, Mo.).....Capt., A.U.S.  
 Garlinghouse, R. O., Iowa City (APO 302, New York, N. Y.).....Major, A.U.S.  
 Hardin, R. C., Iowa City (APO 508, New York, N. Y.).....Major, A.U.S.  
 Hartung, Walter, Iowa City (Camp Carson, Colo.).....Capt., A.U.S.  
 Hessin, A. L., Iowa City (APO 452, New York, N. Y.).....Capt., A.U.S.  
 Irwin, R. L., Iowa City (Fleet PO, San Francisco, Cal.).....Comdr., U.S.N.R.  
 January, L. E., Iowa City (Pyote, Texas).....Major, A.U.S.  
 Kanealy, J. F., Iowa City (APO 928, San Francisco, Cal.).....1st Lt., A.U.S.  
 Keislar, H. D., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Lage, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. U.S.N.R.  
 Laubscher, J. H., Iowa City (Fl. Benning, Ga.).....1st Lt., A.U.S.  
 Longwell, F. H., Iowa City (APO 515, New York, N. Y.).....Major, A.U.S.  
 Moreland, F. B., Iowa City (Maxwell Field, Ala.).....1st Lt., A.U.S.  
 Nagyfy, S. F., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Newman, R. W., Iowa City (Fleet PO, New York, N. Y.).....Lt., U.S.N.R.  
 Parkin, G. L., Iowa City (Mountain Home, Idaho).....1st Lt., A.U.S.  
 Paulus, E. W., Iowa City (APO 34, New York, N. Y.).....Lt. Col., A.U.S.  
 Petersen, V. W., Iowa City (APO 689, New York, N. Y.).....Col., A.U.S.  
 Sells, R. L., Jr., Iowa City (Chico, Cal.).....Capt., A.U.S.  
 Smith, H. F., Iowa City (New York, N. Y.).....Lt. Comdr., U.S.N.R.  
 Springer, E. W., Iowa City (APO 622, Miami, Fla.).....1st Lt., A.U.S.  
 Stadler, H. E., Iowa City (Washington, D. C.).....1st Lt., A.U.S.  
 Staggs, W. A., Iowa City (Camp Robinson, Ark.).....Major, A.U.S.  
 Stephens, R. L., Iowa City (Orlando, Fla.).....Capt., A.U.S.

Stump, R. B., Iowa City (Denver, Colo.).....Capt., A.U.S.  
 Titus, E. L., Iowa City (Belmont, Mass.).....Col., A.U.S.  
 Trapasso, T. J., Iowa City (Patterson Field, Ohio).....1st Lt., A.U.S.  
 Trussell, R. E., Iowa City (APO 5467, San Francisco, Cal.).....Capt., A.U.S.  
 Vest, W. M., Iowa City (Fort Missoula, Mont.).....Capt., A.U.S.  
 Ward, R. H., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.  
 Weatherly, H. E., Iowa City (APO 322, San Francisco, Cal.).....Capt., A.U.S.  
 Ziffren, S. E., Iowa City (Springfield Mo.).....1st Lt., A.U.S.

#### Junior Members

Adams, M. P., Iowa City.....Lt. (jg), U.S.N.R.  
 Ahrens, J. H., Iowa City (APO San Francisco, Cal.).....A.U.S.  
 Ball, A. L., Iowa City (Camp Polk, La.).....Major, A.U.S.  
 Barrent, M. E., Iowa City (Camp Tyson, Tenn.).....Capt., A.U.S.  
 Black, N. M., Iowa City (McChord Field, Wash.).....1st Lt., A.U.S.  
 Blair, J. D., Iowa City (APO San Francisco, Cal.).....Major, A.U.S.  
 Boyd, R. J., Iowa City (Spokane, Wash.).....Capt., A.U.S.  
 Brintnall, E. S., Iowa City (Colorado Springs, Colo.).....1st Lt., A.U.S.  
 Burr, S. P., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Carney, R. G., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Connole, J. F., Iowa City (Camp Bowie, Texas).....1st Lt., A.U.S.  
 Couch, O. A., Iowa City (Camp Van Dorn, Miss.).....1st Lt., A.U.S.  
 Decker, C. E., Iowa City (Oklahoma City, Okla.).....1st Lt., A.U.S.  
 Donnelly, B. A., Iowa City (APO San Francisco, Cal.).....1st Lt., A.U.S.  
 Ehrenhaft, J. L., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Englerth, F. L., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Freiberg, M., Iowa City (Jefferson Barracks, Mo.).....A.U.S.  
 Glassman, A. L., Iowa City (Palm Springs, Cal.).....1st Lt., A.U.S.  
 Gilliland, C. H., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Hamilton, H. E., Iowa City (Chicago, Ill.).....1st Lt., A.U.S.  
 Harms, G. E., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Hendricks, A. B., Iowa City (Klamath Falls, Ore.).....Lt., U.S.N.  
 Hovis, Wm., Iowa City (Fleet PO, San Francisco, Cal.).....Lt. (jg), U.S.N.R.  
 Ide, L. W., Iowa City (Fort Warren, Wyo.).....1st Lt., A.U.S.  
 Jacobs, C. A., Iowa City (APO New York, N. Y.).....Major, A.U.S.  
 Kaplan, Nathan, Iowa City (Carlisle Barracks, Pa.).....1st Lt., A.U.S.  
 Keil, P. G., Iowa City (Sioux City, Iowa).....1st Lt., A.U.S.  
 Kelberg, M. R., Iowa City (Alameda, Cal.).....Lt., U.S.N.R.  
 Keleher, M. F., Iowa City (Great Lakes, Ill.).....Lt. (jg), U.S.N.R.  
 Keohen, G. F., Iowa City (Camp Grant, Ill.).....Capt., A.U.S.  
 Kugler, F. E., Iowa City (Fort Warren, Wyo.).....Capt., A.U.S.  
 Lowry, F. C., Iowa City (Sioux Falls, S. D.).....1st Lt., A.U.S.  
 McCann, J. P., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 McQuiston, W. O., Iowa City (APO San Francisco, Cal.).....Capt., A.U.S.  
 Moen, B. H., Iowa City.....A.U.S.  
 Moon, R. E., Iowa City (APO New York, N. Y.).....1st Lt., A.U.S.  
 Odell, Lester, Iowa City (Pensacola, Fla.).....Lt. (jg), U.S.N.R.  
 Phillips, R. M., Iowa City (San Francisco, Cal.).....1st Lt., A.U.S.  
 Pulliam, R. L., Iowa City (APO 350, New York, N. Y.).....Major, A.U.S.  
 Randall, C. G., Iowa City.....A.U.S.  
 Randall, R. G., Iowa City (Waterloo, Iowa).....Capt., A.U.S.  
 Rosenbusch, M., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.  
 Russin, L. A., Iowa City (Fort Blanding, Fla.).....Capt., A.U.S.  
 Saar, J. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Sawtelle, W. W., Iowa City.....Lt., U.S.N.R.  
 Schwidde, J. T., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shand, J. A., Iowa City (Carlisle Barracks, Penn.).....1st Lt., A.U.S.  
 Shapiro, S. I., Iowa City.....A.U.S.  
 Simpson, F. E., Iowa City (Camp Grant, Ill.).....A.U.S.  
 Skeewis, J. E., Iowa City (Corona, Cal.).....Lt., U.S.N.R.  
 Skouge, O. T., Iowa City.....A.U.S.  
 Towle, R. A., Iowa City (Fleet PO, San Francisco, Cal.).....Lt., U.S.N.R.  
 Warren, R. F., Iowa City (Santa Barbara, Cal.).....A.U.S.  
 Watters, V. G., Iowa City (Fort Leonard Wood, Mo.).....1st Lt., A.U.S.  
 Wicks, W. J., Iowa City (Camp Crowder, Mo.).....Capt., A.U.S.  
 Williams, L. A., Iowa City (Treasure Island, Cal.).....1st Lt., A.U.S.  
 Willumsen, H. C., Iowa City (Denver, Colo.).....Capt., A.U.S.  
 Wolkin, J., Iowa City (San Antonio, Texas).....Capt., A.U.S.  
 Yetter, W. L., Iowa City (APO New York, N. Y.).....Capt., A.U.S.  
 Zahrt, N. E., Iowa City (Keesler Field, Miss.).....Capt., A.U.S.  
 Zimmerman, H. A., Iowa City (Santa Ana, Cal.).....1st Lt., A.U.S.

#### Keokuk County

Bjork, Floyd, Keota (APO 254, New York, N. Y.).....Capt., A.U.S.  
 Doyle, J. L., Sigourney (Camp Barkeley, Texas).....A.U.S.  
 Engelmann, A. T., What Cheer (Camp Polk, La.).....Capt., A.U.S.  
 Graham, J. A., Gibson (Needles, Cal.).....1st Lt., A.U.S.  
 Montgomery, G. E., Keota (Antioch, Cal.).....Capt., A.U.S.  
 Wiley, Dudley, Hedrick (Mason City, Wash.).....A.U.S.

#### Kossuth County

Clapsaddle, D. W., Burt (APO 519, New York, N. Y.).....Capt., A.U.S.  
 Corbin, R. L., Luverne (Des Moines, Iowa).....Capt., A.U.S.  
 Kenefick, J. N., Algona (San Diego, Cal.).....Lt. Comdr., U.S.N.R.  
 Williams, R. L., Lakota (Fleet PO, San Francisco, Cal.).....Lt. Comdr., U.S.N.R.

**Lee County**

Ashline, G. H., Keokuk (APO 253, New York, N. Y.) Capt., A.U.S.  
 Cleary, H. G., Fort Madison (Ft. Benning, Ga.) ..... Capt., A.U.S.  
 Cooper, R. E., Keokuk (APO 565, San Francisco, Cal.) Capt., A.U.S.  
 Johnstone, A. A., Keokuk (APO 942, Seattle, Wash.) Col., A.U.S.  
 McKee, T. L., Keokuk (Miami Beach, Fla.) ..... Major, A.U.S.  
 Pumphrey, L. C., Keokuk (Ft. Leonard Wood, Mo.) Major, A.U.S.  
 Rankin, J. R., Keokuk (Memphis, Tenn.) ..... Lt., U.S.N.R.  
 Richmond, A. C., Fort Madison (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Steffey, F. L., Keokuk (Fort Snelling, Minn.) ..... Capt., A.U.S.  
 Van Werden, B. D., Keokuk (APO 4777, New York, N. Y.) ..... Capt., A.U.S.  
 Younan, Thomas, Ft. Madison (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Linn County**

Andre, G. R., Lisbon (APO 90, Ft. Dix, N. J.) ..... Major, A.U.S.  
 Berney, P. W., Cedar Rapids (APO 207, New York, N. Y.) ..... Capt., A.U.S.  
 Block, W. M., Cedar Rapids (APO 713, San Francisco, Cal.) ..... Capt., A.U.S.  
 Chapman, R. M., Cedar Rapids (Chicago, Ill.) ..... Capt., A.U.S.  
 Coughlan, V. H., Coggon (Fort Snelling, Minn.) ..... A.U.S.  
 Courter, W. O., Springville (APO 464, New York, N. Y.) ..... Major, A.U.S.  
 Downing, J. S., Cedar Rapids (APO 565, San Francisco, Cal.) ..... Major, A.U.S.  
 Dunn, F. C., Cedar Rapids (Winfield, Kan.) ..... Major, A.U.S.  
 Gearhart, Merriam, Springville (Phoenixville, Pa.) ..... Major, A.U.S.  
 Gerstman, Herbert, Marion (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Halpin, L. J., Cedar Rapids (Atlanta, Ga.) ..... Major, A.U.S.  
 Hecker, J. T., Cedar Rapids (Camp Bowie, Texas) ..... Capt., A.U.S.  
 Jirsa, H. O., Cedar Rapids (APO 871, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Keith, J. J., Marion (Menlo Park, Cal.) ..... Major, A.U.S.  
 Kieck, E. G., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Kruckenberg, W. G., Mount Vernon (Portsmouth, Va.) ..... Lt., U.S.N.R.  
 Leedham, C. L., Springville (APO 465, New York, N. Y.) ..... Col., A.U.S.  
 Locher, R. C., Cedar Rapids (Camp Gruber, Okla.) Major, A.U.S.  
 †MacDougal, R. F., Cedar Rapids (APO 9057, New York, N. Y.) ..... Capt., A.U.S.  
 McConkie, E. B., Cedar Rapids (Scott Field, Ill.) ..... Major, A.U.S.  
 McQuiston, J. S., Cedar Rapids (Fort Warren, Wyo.) ..... Major, A.U.S.  
 Meffert, C. B., Cedar Rapids (APO 403, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Murray, E. S., Cedar Rapids (APO 787, New York, N. Y.) ..... Major, A.U.S.  
 Netolicky, R. Y., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Noble, W. C., Cedar Rapids (Camp San Luis Obispo, Cal.) ..... 1st Lt., A.U.S.  
 Noe, C. A., Cedar Rapids (Hot Springs, Ark.) ..... Major, A.U.S.  
 Parke, John, Cedar Rapids (APO 761, New York, N. Y.) ..... Major, A.U.S.  
 Proctor, R. D., Cedar Rapids (Corpus Christi, Texas) ..... Comdr., U.S.N.R.  
 Redmond, J. J., Cedar Rapids (APO 813, New York, N. Y.) ..... Major, A.U.S.  
 Rieniets, J. H., Cedar Rapids (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sedlacek, L. B., Cedar Rapids (APO 244, San Francisco, Cal.) ..... Lt. Col., A.U.S.  
 Smrha, J. A., Cedar Rapids (APO 922, San Francisco, Cal.) ..... Capt., A.U.S.  
 Stansbury, J. R., Cedar Rapids (Fort Lewis, Wash.) ..... Capt., A.U.S.  
 Stark, C. H., Cedar Rapids (Denver, Colo.) ..... Capt., A.U.S.  
 Sulek, A. E., Cedar Rapids (APO 244, San Francisco, Cal.) ..... Major, A.U.S.  
 Woodhouse, K. W., Cedar Rapids (APO 519, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Wray, R. M., Cedar Rapids (APO 958, San Francisco, Cal.) ..... Major, A.U.S.  
 Yavorsky, W. D., Cedar Rapids (Jacksonville, Fla.) ..... Lt. Comdr., U.S.N.

**Louisa County**

DeYarman, K. T., Morning Sun (San Antonio, Texas) ..... Capt., A.U.S.  
 Tandy, R. W., Morning Sun (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

**Lucas County**

Lister, K. E., Chariton (Fort Snelling, Minn.) ..... A.U.S.

**Lyon County**

Cook, S. H., Rock Rapids (Memphis, Tenn.) ..... Major, A.U.S.  
 †Corcoran, T. E., Rock Rapids (Am. P.O.W. 3040, Oflag 64, Germany) ..... Capt., A.U.S.  
 Moriarty, J. F., Rock Rapids (APO 464, New York, N. Y.) ..... Capt., A.U.S.

**Madison County**

Boden, H. N., Truro (Fresno, Cal.) .....  
 Chesnut, P. F., Winterset (Camp Gruber, Okla.) ..... Capt., A.U.S.  
 Veltman, J. F., Winterset (APO 957, San Francisco, Cal.) ..... Capt., A.U.S.  
 Wicks, R. L., Winterset (APO 637, New York, N. Y.) ..... Lt. Col., A.U.S.

**Mahaska County**

Bennett, G. W., Oskaloosa (APO 9641, San Francisco, Cal.) ..... Major, A.U.S.  
 Bos, H. C., Oskaloosa ..... Major, A.U.S.  
 Campbell, W. V., Oskaloosa (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Clark, G. H., Oskaloosa (Mare Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Greenlee, M. R., Oskaloosa (Port Hueneme, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Lemon, K. M., Oskaloosa (APO 637, New York, N. Y.) ..... Capt., A.U.S.  
 Zager, L. L., Oskaloosa (APO 436, New York, N. Y.) ..... Capt., A.U.S.

**Marion County**

Elliott, V. J., Knoxville (APO 558, New York, N. Y.) ..... Major, A.U.S.  
 Mater, D. A., Knoxville (Lincoln, Neb.) ..... Major, A.U.S.  
 Ralston, F. P., Knoxville (Indio, Cal.) ..... Capt., A.U.S.  
 Schiek, C. M., Knoxville ..... Lt. Comdr., U.S.N.R.  
 Schroeder, M. C., Pella (Houston, Texas) ..... Capt., A.U.S.  
 Williams, D. B., Knoxville ..... Capt., A.U.S.

**Marshall County**

Carpenter, R. C., Marshalltown (APO New York, N. Y.) ..... Capt., A.U.S.  
 Marble, E. J., Marshalltown (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Marble, W. P., Marshalltown (Walla Walla, Wash.) Major, A.U.S.  
 Meyer, M. G., Marshalltown (APO New York, N. Y.) ..... Major, A.U.S.  
 Noonan, J. J., Marshalltown (Fort Jackson, S. Car.) ..... Lt. Col., A.U.S.  
 Phelps, R. E., State Center (APO 7, San Francisco, Cal.) ..... Capt., A.U.S.  
 Sinning, J. E., Melbourne (Camp Haan, Cal.) ..... Capt., A.U.S.  
 Smith, E. M., State Center (APO 520, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Stergman, J. J., Marshalltown (APO 520, New York, N. Y.) ..... Major, A.U.S.  
 Wells, R. C., Marshalltown (Gowen Field, Idaho) 1st Lt., A.U.S.  
 Wolfe, O. D., Marshalltown (APO 937, Seattle Wash.) ..... Capt., A.U.S.  
 Wolfe, R. M., Marshalltown (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Mills County**

DeYoung, W. A., Glenwood (APO 228, New York, N. Y.) ..... Capt., A.U.S.  
 Magaret, E. C., Glenwood (APO 973, Minneapolis, Minn.) ..... Capt., A.U.S.  
 Shonka, T. E., Malvern (APO 403, New York, N. Y.) ..... Capt., A.U.S.

**Mitchell County**

Culbertson, R. A., St. Ansgar (Camp Campbell, Ky.) ..... Lt. Col., A.U.S.  
 Moore, E. E., Osage (APO 591, New York, N. Y.) Major, A.U.S.  
 Owen, W. E., Osage (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Walker, T. G., Riceville (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.R.

**Monona County**

Almer, L. E., Moorhead (Fort Knox, Ky.) ..... Capt., A.U.S.  
 Anderson, S. N., Onawa (Oakland, Cal.) ..... Lt., U.S.N.R.  
 Ganzhorn, H. L., Mapleton (APO 928, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gaukel, L. A., Onawa (Fort Riley, Kan.) ..... Capt., A.U.S.  
 †Harlan, M. E., Onawa (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Stauch, M. O., Whiting (Fort Lewis, Wash.) ..... Major, A.U.S.  
 Wainwright, M. T., Mapleton (APO 17508, New York, N. Y.) ..... Capt., A.U.S.  
 Wolpert, P. L., Onawa (Denver, Colo.) ..... Capt., A.U.S.

**Monroe County**

Gilliland, C. H., Albia (Quonset Point, R. I.) ..... Lt., U.S.N.R.  
 Heimann, V. R., Albia (Camp Maxey, Texas) ..... Capt., A.U.S.  
 Richter, H. J., Albia (Waco, Texas) ..... Major, A.U.S.  
 Smith, R. A., Albia (New Cumberland, Pa.) ..... Capt., A.U.S.

**Montgomery County**

Bastron, H. C., Red Oak (APO 951, San Francisco, Cal.) ..... Major, A.U.S.  
 Hansen, F. A., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Moriarty, L. R., Villisca (Denver, Colo.) ..... Capt., A.U.S.  
 Nelson, C. C., Red Oak (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Panzer, E. J. C., Stanton (Fleet PO, San Francisco, Cal.) ..... Lt. (jg), U.S.N.R.  
 Rost, G. S., Red Oak (Chickasha, Okla.) ..... Capt., A.U.S.  
 Sorensen, E. M., Red Oak (Jefferson Barracks, Mo.) ..... Capt., A.U.S.

**Muscatine County**

Ady, A. E., West Liberty (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Asthalter, R. W., Muscatine (Fort Meade, Md.) ..... 1st Lt., A.U.S.  
 Carlson, E. H., Muscatine (Milwaukee, Wis.) ..... Capt., A.U.S.  
 Goad, R. R., Muscatine (Washington, D. C.) ..... Comdr., U.S.N.R.  
 Kimball, J. E., Jr., West Liberty (Sioux City, Iowa) Major, A.U.S.  
 Lindley, E. L., Muscatine (APO 6, San Francisco, Cal.) ..... Capt., A.U.S.  
 Muhs, E. O., Muscatine (APO 578, New York, N. Y.) ..... Major, A.U.S.  
 Norcm, Walter, Muscatine (APO, Miami, Fla.) ..... Capt., A.U.S.  
 Robertson, T. A., West Liberty (APO 119, New York, N. Y.) ..... Capt., A.U.S.  
 Sywassink, G. A., Muscatine (APO 488-"Y" Forces, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Whitmer, L. H., Wilton Junction (Fort Sill, Okla.) ..... Lt. Col., A.U.S.



**O'Brien County**

Getty, E. B., Primghar (APO 117, New York, N. Y.) ..... Capt., A.U.S.  
 Hayne, W. W., Paullina (APO 638, New York, N. Y.) ..... Capt., A.U.S.  
 Moen, S. T., Hartley (APO 689, New York, N. Y.) ..... Major, A.U.S.  
 Myers, K. W., Sheldon (Watertown, S. Dak.) ..... 1st Lt., A.U.S.

**Osceola County**

Kuntz, G. S., Sibley (APO 34, New York, N. Y.) ..... Capt., A.U.S.

**Page County**

Barnes, C. A., Shenandoah (Fort Bragg, N. C.) ..... Capt., A.U.S.  
 Blackman, Nathan, Clarinda (Ft. Leavenworth, Kan.) ..... Capt., A.U.S.  
 Bossingham, E. N., Clarinda (Fort Ord, Cal.) ..... Major, A.U.S.  
 Bunch, H. McK., Shenandoah (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Burdick, F. D., Shenandoah ..... Capt., A.U.S.  
 Burnett, F. K., Clarinda (Denver, Colo.) ..... Major, A.U.S.  
 Rausch, G. R., Clarinda (Wendover Field, Utah) ..... Capt., A.U.S.  
 Savage, L. W., Shenandoah (Fort Meade, Md.) ..... 1st Lt., A.U.S.

**Palo Alto County**

Davey, W. P., Emmetsburg (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.

**Plymouth County**

Bowers, C. V., LeMars (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Fisch, R. J., LeMars (Denver, Colo.) ..... Capt., A.U.S.  
 Foss, R. H., Remsen (Salt Lake City, Utah) ..... Capt., A.U.S.  
 Wolfson, Harold, Kingsley (Fort Lewis, Wash.) ..... Capt., A.U.S.

**Pocahontas County**

Blair, F. L., Jr., Fonda (San Antonio, Texas) ..... Lt., U.S.N.R.  
 Herrick, T. G., Gilmore City (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Larson, J. B., Laurens (APO 720, San Francisco, Cal.) ..... Capt., A.U.S.  
 Leserman, L. K., Rolfe (APO 502, San Francisco, Cal.) ..... Capt., A.U.S.  
 Patterson, A. W., Fonda (Des Moines, Iowa) ..... Capt., A.U.S.

**Polk County**

Abbott, W. D., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Anderson, N. B., Des Moines (APO 600, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Angell, C. A., Des Moines (Ft. Bragg, N. Car.) ..... Capt., A.U.S.  
 Anspach, R. S., Mitchellville (APO 528, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Barner, J. L., Des Moines (Atlanta, Ga.) ..... Major, A.U.S.  
 Barnes, B. C., Des Moines (Ogden, Utah) ..... Major, A.U.S.  
 Bates, M. T., Des Moines (Corona, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Bender, H. R., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Bond, T. A., Des Moines (Shoemaker, Cal.) ..... Lt., U.S.N.R.  
 Bone, H. C., Des Moines (Arlington, Cal.) ..... Major, A.U.S.  
 Brown, A. W., Des Moines (APO 5934, New York, N. Y.) ..... Capt., A.U.S.  
 Bruner, J. M., Des Moines (Camp Barkeley, Texas) ..... Major, A.U.S.  
 Bruns, P. D., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 †Burgeson, F. M., Des Moines (Gefangenennummer 1480, Lager-Bezeichnung: Kriessgef-Offizierlager XXI B, Deutschland [Allemagne]) ..... Capt., A.U.S.  
 Caldwell, J. W., Des Moines (Patricia Bay, British Columbia, Canada) ..... Flight Lt., R.C.A.F.  
 Chambers, J. W., Des Moines (APO 648, New York, N. Y.) ..... Capt., A.U.S.  
 Chase, W. B., Jr., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Clark, G. E., Jr., Des Moines (APO 520, New York, N. Y.) ..... Capt., A.U.S.  
 Connell, J. R., Des Moines (Phoenixville, Pa.) ..... Major, A.U.S.  
 Corn, H. H., Des Moines (Douglas, Wyo.) ..... Capt., A.U.S.  
 Coughlan, D. W., Des Moines (APO 689, New York, N. Y.) ..... Capt., A.U.S.  
 Crowley, D. F., Jr., Des Moines (Presque Isle, Me.) ..... Capt., A.U.S.  
 Crowley, F. A., Des Moines (APO 783, New York, N. Y.) ..... 1st Lt., A.U.S.  
 DeCicco, Ralph, Des Moines (APO Los Angeles, Cal.) ..... Capt., A.U.S.  
 Decker, H. G., Des Moines (Long Beach, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Downing, A. H., Des Moines (Ft. Snelling, Minn.) ..... 1st Lt., A.U.S.  
 Dushkin, M. A., Des Moines (APO 689, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Elliott, O. A., Des Moines (Pecos, Texas) ..... Capt., A.U.S.  
 Ellis, H. G., Des Moines (APO 710, San Francisco, Cal.) ..... Capt., A.U.S.  
 Ervin, L. J., Des Moines (Lubbock, Texas) ..... Lt. Col., A.U.S.  
 Fleck, W. L., Des Moines (Ft. Howard, Md.) ..... Lt. Col., A.U.S.  
 Fried, David, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Fracasse, John, Des Moines ..... 1st Lt., A.U.S.  
 George, E. M., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Gerchek, E. W., Des Moines .....  
 Gibson, D. N., Des Moines (APO 322, Unit I, San Francisco, Cal.) ..... Major, A.U.S.  
 Glomset, D. A., Des Moines (APO 9826 New York, N. Y.) ..... Capt., A.U.S.  
 Goldberg, Louie, Des Moines (APO 9764, San Francisco, Cal.) ..... Capt., A.U.S.  
 Gordon, A. M., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.

Graeber, F. O., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Greek, L. M., Des Moines (APO 512, New York, N. Y.) ..... Capt., A.U.S.  
 Gurau, H. H., Des Moines (Malden, Mo.) ..... Capt., A.U.S.  
 Haines, D. J., Des Moines (APO 453, San Francisco, Cal.) ..... Capt., A.U.S.  
 Harris, D. D., Des Moines (Gulfport, Miss.) ..... Lt. Comdr., U.S.N.R.  
 Harris, H. L., Des Moines (Salina, Kan.) ..... 1st Lt., A.U.S.  
 Hess, John, Jr., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 James, A. D., Des Moines (Fort Eustis, Va.) ..... Comdr., U.S.N.R.  
 Johnston, C. H., Des Moines (APO 639, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Kast, D. H., Des Moines (Los Angeles, Cal.) ..... Capt., A.U.S.  
 Kelley, E. J., Des Moines (Columbus, Ohio) ..... Lt. Comdr., U.S.N.R.  
 Kelly, D. H., Des Moines (Denver, Colo.) ..... Lt. Col., A.U.S.  
 Kirch, W. A. W., Des Moines (Seattle, Wash.) ..... Lt. Comdr., U.S.N.R.  
 Klocksiem, H. L., Des Moines (APO New York, N. Y.) ..... Capt., A.U.S.  
 Kotke, E. E., Des Moines (Temple, Texas) ..... Capt., A.U.S.  
 Landis, S. N., Des Moines (West Palm Beach, Fla.) ..... 1st Lt., A.U.S.  
 La Tona, Salvatore, Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Lederman, James, Des Moines ..... 1st Lt., R.C.A.  
 Lehman, E. W., Des Moines (APO 11115, San Francisco, Cal.) ..... Major, A.U.S.  
 Losh, C. W., Jr., Des Moines (APO 209, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Lovejoy, E. P., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Maloney, P. J., Des Moines (Fort Lewis, Wash.) ..... 1st Lt., A.U.S.  
 Marquis, G. S., Des Moines (Brooklyn, N. Y.) ..... Lt. Comdr., U.S.N.R.  
 Martin, L. E., Des Moines (Helena, Ark.) ..... 1st Lt., A.U.S.  
 Matheson, J. H., Des Moines (San Leandro, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mauritz, E. L., Des Moines (APO 763, New York, N. Y.) ..... Capt., A.U.S.  
 McCoy, H. J., Des Moines (Iowa City, Iowa) ..... Comdr., U.S.N.R.  
 McDonald, D. J., Des Moines (APO 339, New York, N. Y.) ..... Major, A.U.S.  
 McNamee, J. H., Des Moines (Oakland, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Mencher, E. W., Des Moines ..... 1st Lt., A.U.S.  
 Merkel, B. M., Des Moines (APO 520, New York, N. Y.) ..... Major, A.U.S.  
 Montgomery, S. A., Des Moines (Carlisle Barracks, Pa.) ..... Capt., A.U.S.  
 Morden, R. P., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Mumma, C. S., Des Moines (Los Angeles, Cal.) ..... Major, A.U.S.  
 Murphy, J. H., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Nelson, A. L., Des Moines (Camp Livingston, La.) ..... Major, A.U.S.  
 Noun, L. J., Des Moines (Camp Peary, Va.) ..... Lt., U.S.N.R.  
 Noun, M. H., Des Moines (APO 562, New York, N. Y.) ..... Major, A.U.S.  
 Nourse, M. H., Des Moines (Fleet PO, New York, N. Y.) ..... Lt., U.S.N.  
 Patton, B. W., Des Moines (Camp Robinson, Ark.) ..... 1st Lt., A.U.S.  
 Pearlman, L. R., Des Moines (Camp Gruber, Okla.) ..... Major, A.U.S.  
 Peisen, C. J., Des Moines (APO 165, New York, N. Y.) ..... Capt., A.U.S.  
 Penn, E. C., West Des Moines (APO 650, New York, N. Y.) ..... Capt., A.U.S.  
 Pfeiffer, E. P., Des Moines (APO 11043, San Francisco, Cal.) ..... Capt., A.U.S.  
 Phillips, A. B., Des Moines (Corona, Cal.) ..... Lt., U.S.N.R.  
 Porter, R. J., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Powell, L. D., Des Moines (Oceanside, Cal.) ..... Capt., U.S.N.R.  
 Pratt, E. B., Des Moines (APO New York, N. Y.) ..... Major, A.U.S.  
 Priestley, J. B., Des Moines (Camp Crowder, Mo.) ..... Lt. Cel., A.U.S.  
 Purdy, W. O., Des Moines (APO 5935, New York, N. Y.) ..... Capt., A.U.S.  
 Riegelman, R. H., Des Moines (APO 634, New York, N. Y.) ..... Major, A.U.S.  
 Robinson, V. C., Des Moines (Rochester, Minn.) ..... Major, A.U.S.  
 Rotkow, M. J., Des Moines (Ft. Benj. Harrison, Ind.) ..... Capt., A.U.S.  
 Schaeferle, M. J., Des Moines (Carlisle Barracks, Penn.) ..... 1st Lt., A.U.S.  
 Schlaser, V. L., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.  
 Shepherd, L. K., Des Moines (APO New York, N. Y.) ..... Major, A.U.S.  
 Shiffler, H. K., Des Moines (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Singer, P. L., Des Moines (Camp Grant, Ill.) ..... 1st Lt., A.U.S.  
 Skultety, J. A., Des Moines (New Orleans, La.) ..... P. A. Surg., U.S.P.H.S.  
 Smead, H. H., Des Moines (APO 595, New York, N. Y.) ..... Capt., A.U.S.  
 Smith, H. J., Des Moines (Chicago, Ill.) ..... Lt., U.S.N.R.  
 Smith, R. T., Des Moines (APO 713, Unit I, San Francisco, Cal.) ..... Capt., A.U.S.  
 \*Snodgrass, R. W., Des Moines (APO 9528, New York, N. Y.) ..... Capt., A.U.S.

Snyder, G. E., Grimes (APO 709, San Francisco, Cal.) ..... Major, A.U.S.  
 Sohm, H. A., Des Moines (Oakland, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Sorensen, R. M., Des Moines (Topeka, Kan.) ..... Major, U.S.P.H.S.  
 Springer, F. A., Des Moines (Treasure Island, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Stearns, A. B., Des Moines (Denver, Colo.) ..... Major, A.U.S.  
 Stiekler, Robert, Des Moines (Fort Benning, Ga.) ..... Capt., A.U.S.  
 Stitt, P. L., Des Moines (Seattle, Wash.) ..... Lt. (jg), U.S.N.R.  
 Throckmorton, J. F., Des Moines (APO 403, New York, N. Y.) ..... Major, A.U.S.  
 Toubes, A. A., Des Moines (APO 635, New York, N. Y.) ..... Capt., A.U.S.  
 Turner, H. V., Des Moines (Camp Fannin, Texas) ..... Capt., A.U.S.  
 Updegraff, Thomas, Des Moines (Spokane, Wash.) ..... 1st Lt., A.U.S.  
 Van Hale, L. A., Des Moines (APO 515, New York, N. Y.) ..... Capt., A.U.S.  
 Vaubel, E. K., Des Moines (Washington, D. C.) ..... Capt., A.U.S.  
 Wagner, E. C., Des Moines (Washington, D. C.) ..... 1st Lt., A.U.S.  
 Willett, W. M., Des Moines (APO 507, New York, N. Y.) ..... Capt., A.U.S.  
 Wirtz, D. C., Des Moines (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Zarchy, A. C., Des Moines (Camp Cooke, Cal.) ..... Capt., A.U.S.

#### Pottawattamie County

†Beaumont, F. H., Council Bluffs (APO 34, New York, N. Y.) ..... Major, A.U.S.  
 Cogley, J. P., Council Bluffs (San Antonio, Texas) ..... Lt. Col., A.U.S.  
 Collins, R. M., Council Bluffs (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Dean, A. M., Council Bluffs (Pensacola, Fla.) ..... Comdr., U.S.N.R.  
 Edwards, C. V., Council Bluffs (Pensacola, Fla.) ..... Lt. Comdr., U.S.N.R.  
 Floersch, E. B., Council Bluffs (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Hennessy, J. D., Council Bluffs (Fleet PO, San Francisco, Cal.) ..... Lt., U.S.N.R.  
 Jensen, A. L., Council Bluffs (Temple, Texas) ..... Lt. Col., A.U.S.  
 Klok, G. J., Council Bluffs (Fleet PO, San Diego, Cal.) ..... Lt., U.S.N.R.  
 Kurth, C. J., Council Bluffs (Camp Crowder, Mo.) ..... Capt., A.U.S.  
 Lambert, E. M., Council Bluffs (APO 403, New York, N. Y.) ..... Major, A.U.S.  
 Maiden, S. D., Council Bluffs (Camp Hood, Texas) ..... Major, A.U.S.  
 Martin, L. R., Council Bluffs (San Francisco, Cal.) ..... Capt., A.U.S.  
 Mathiasen, H. W., Neola (Alexandria, La.) ..... Capt., A.U.S.  
 Moskowitz, J. M., Council Bluffs (APO 403, New York, N. Y.) ..... Capt., A.U.S.  
 Rosenfeld, R. T., Council Bluffs (Staten Island, N. Y.) ..... Capt., A.U.S.  
 Sternhill, Isaac, Council Bluffs (Springfield, Mo.) ..... Capt., A.U.S.  
 Tinley, R. E., Council Bluffs (APO 600, New York, N. Y.) ..... Capt., A.U.S.  
 Treynor, J. V., Council Bluffs (Fleet PO, San Francisco, Cal.) ..... Comdr., U.S.N.R.  
 West, A. G., Council Bluffs (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Wieseler, R. J., Avoca (McChord Field, Wash.) ..... A.U.S.  
 Wurl, O. A., Council Bluffs (APO 887, New York, N. Y.) ..... Major, A.U.S.

#### Poveshiek County

Brobyn, T. E., Grinnell (Camp Swift, Texas) ..... Major, A.U.S.  
 Hickerson, L. C., Brooklyn (San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 Korfmaier, E. S., Grinnell (San Francisco, Cal.) ..... Capt., A.U.S.  
 Niemann, T. V., Brooklyn (APO San Francisco, Cal.) ..... Capt., A.U.S.  
 Parisb, J. R., Grinnell (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Somers, P. E., Grinnell (St. Louis, Mo.) ..... 1st Lt., A.U.S.

#### Ringgold County

Seaman, C. L., Mount Ayr (Fort Smith, Ark.) ..... Major, A.U.S.

#### Sac County

Bassett, G. H., Sac City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Deters, D. C., Schaller (APO 367, New York, N. Y.) ..... Capt., A.U.S.  
 Evans, W. I., Sac City (APO 9212, New York, N. Y.) ..... Capt., A.U.S.  
 Klocksiem, R. G., Odebolt (Oceanside, Cal.) ..... Lt., U.S.N.R.  
 Neu, H. N., Sac City (APO 708, San Francisco, Cal.) ..... Lt. Col., A.U.S.

#### Scott County

Baker, R. W., Davenport (APO 511, New York, N. Y.) ..... Capt., A.U.S.  
 Balzer, W. J., Davenport (Vancouver, Wash.) ..... Capt., A.U.S.  
 Bishop, J. F., Davenport (Camp Wheeler, Ga.) ..... Capt., A.U.S.  
 Block, L. A., Davenport (Cambridge, Ohio) ..... Major, A.U.S.  
 Boden, W. C., Davenport (APO 3760, New York, N. Y.) ..... Capt., A.U.S.  
 Boyer, U. S., Davenport (Rock Island, Ill.) ..... Lt. Col., A.U.S.  
 Brown, M. J., Davenport (APO 5934, New York, N. Y.) ..... Major, A.U.S.  
 Carey, E. T., Davenport (APO 928, San Francisco, Cal.) ..... 1st Lt., A.U.S.  
 Christlansen, C. C., Dixon (APO 961, San Francisco, Cal.) ..... Capt., A.U.S.  
 Coleman, Tom, Davenport (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Cummins, G. M., Jr., Davenport (Fort Custer, Mich.) ..... Capt., A.U.S.

Decker, C. E., Davenport (APO 321, San Francisco, Cal.) ..... Major, A.U.S.  
 Evans, H. J., Davenport (Daytona Beach, Fla.) ..... Capt., A.U.S.  
 Gibson, P. E., Davenport (Palm Springs, Cal.) ..... Major, A.U.S.  
 Goenne, Wm., Jr., Davenport (APO 91, New York, N. Y.) ..... Capt., A.U.S.  
 Hurevitz, H. M., Davenport (APO 370, New York, N. Y.) ..... Major, A.U.S.  
 Hurteau, Everett, Davenport (APO 647, New York, N. Y.) ..... Capt., A.U.S.  
 Hurteau, W. W., Davenport (Camp Berkeley, Texas) ..... Major, A.U.S.  
 Kimberly, L. W., Davenport (Hines, Ill.) ..... Capt., A.U.S.  
 Krakauer, Max, Davenport (APO 17366, New York, N. Y.) ..... Capt., A.U.S.  
 Kuhl, A. B., Jr., Davenport (El Paso, Texas) ..... 1st Lt., A.U.S.  
 LaDage, L. H., Davenport (APO 229, New York, N. Y.) ..... Major, A.U.S.  
 Lorfeld, G. W., Davenport (Columbus, Ohio) ..... Capt., A.U.S.  
 Marker, J. I., Davenport (Camp Beale, Cal.) ..... Col., M.R.C.  
 McMeans, T. W., Davenport (APO 657, New York, N. Y.) ..... Capt., A.U.S.  
 Neufeld, R. J., Davenport (APO 565, Unit I, San Francisco, Cal.) ..... Capt., A.U.S.  
 Perkins, R. M., Davenport (Carlisle Barracks, Pa.) ..... 1st Lt., A.U.S.  
 Sheeler, I. H., Davenport (APO 350, New York, N. Y.) ..... Capt., A.U.S.  
 Shorey, J. R., Davenport (APO 204, New York, N. Y.) ..... Capt., A.U.S.  
 Smazal, S. F., Davenport (APO 230, New York, N. Y.) ..... Capt., A.U.S.  
 Sorenson, A. C., Davenport (Oakland, Cal.) ..... Comdr., U.S.N.R.  
 Sunderbruch, J. H., Davenport (APO 322, San Francisco, Cal.) ..... Capt., A.U.S.  
 Weinberg, H. B., Davenport (APO 5587, San Francisco, Cal.) ..... Major, A.U.S.  
 Zukerman, C. M., Bettendorf (Chicago, Ill.) ..... Capt., A.U.S.

#### Shelby County

Bisgard, C. V., Harlan (Farragut, Idaho) ..... Lt. Comdr., U.S.N.R.  
 Griffith, W. O., Shelby (APO 9490, New York, N. Y.) ..... Cap., A.U.S.  
 McGowan, J. P., Harlan (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.

#### Sioux County

Gleysteen, R. R., Alton (Portsmouth, Va.) ..... Lt. Comdr., U.S.N.  
 Grossmann, E. B., Orange City (APO 572, New York, N. Y.) ..... Capt., A.U.S.  
 Larson, M. O., Hawarden (Camp Berkeley, Texas) ..... Lt. Col., A.U.S.  
 Oelrich, A. M., Hull (APO New York, N. Y.) ..... 1st Lt., A.U.S.  
 Oelrich, C. D., Sioux Center (Buckley Field, Colo.) ..... 1st Lt., A.U.S.

#### Story County

Conner, J. D., Nevada (APO 708, San Francisco, Cal.) ..... Capt., A.U.S.  
 Fellows, J. G., Ames (APO 451, New York, N. Y.) ..... Major, A.U.S.  
 Lekwa, A. H., Story City (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 McFarland, G. E., Jr., Ames (San Pedro, Cal.) ..... Lt., U.S.N.R.  
 McFarland, J. E., Ames (Seattle, Wash.) ..... Lt. Comdr., U.S.N.R.  
 Rosebrook, L. E., Ames (APO 433, New York, N. Y.) ..... Major, A.U.S.  
 Sperow, W. B., (Fleet PO, San Francisco, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Thorburn, O. L., Ames (Alamogordo, N. Mex.) ..... Major, A.U.S.  
 Wall, David, Ames (Ft. Dix, N. J.) ..... 1st Lt., A.U.S.

#### Tama County

Bezman, H. S., Traer (APO 9875, New York, N. Y.) ..... Capt., A.U.S.  
 Boller, G. C., Traer (Ft. Riley, Kansas) ..... Capt., A.U.S.  
 Dobias, S. G., Chelsea (San Francisco, Cal.) ..... Capt., A.U.S.  
 Havlik, A. J., Tama (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Schaeferle, L. G., Gladbrook (Fort Leonard Wood, Mo.) ..... Lt., U.S.N.R.  
 Standefer, J. M., Tama (Des Moines, Iowa) ..... Lt., U.S.N.R.

#### Taylor County

Hardin, J. F., Bedford (APO 952, San Francisco, Cal.) ..... 1st Lt., A.U.S.

#### Union County

Beatty, H. G., Creston (New Orleans, La.) ..... 1st Lt., A.U.S.  
 Paragas, M. R., Creston (APO 442, San Francisco, Cal.) ..... Capt., A.U.S.  
 Ryan, C. J., Creston (Scribner, Neb.) ..... Capt., A.U.S.

#### Wapello County

Brentan, Emanuel, Ottumwa (APO 252, New York, N. Y.) ..... 1st Lt., A.U.S.  
 Brody, Sidney, Ottumwa (APO 366, New York, N. Y.) ..... Lt. Col., A.U.S.  
 Gilfillan, C. D. N., Eldon (Battle Creek, Mich.) ..... Capt., A.U.S.  
 Hughes, R. O., Ottumwa (Coronado, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Moore, G. C., Ottumwa (APO 17508, New York, N. Y.) ..... Capt., A.U.S.  
 Nelson, F. L., Jr., Ottumwa ..... Capt., A.U.S.  
 Prewitt, L. H., Ottumwa (Atlantic City, N. J.) ..... Major, A.U.S.  
 Selman, R. J., Ottumwa (El Paso, Texas) ..... Col., A.U.S.  
 Struble, G. C., Ottumwa (Fort Harrison, Ind.) ..... Lt. Col., A.U.S.  
 Whitehouse, W. N., Ottumwa (San Diego, Cal.) ..... Lt. Comdr., U.S.N.R.  
 Wolfe, W. C., Ottumwa (Fleet PO, San Francisco, Cal.) ..... Lt. (jg) U.S.N.R.

#### Warren County

Fullgrabe, E. A., Indianola (San Diego, Cal.) ..... Lt., U.S.N.R.  
 Hoffman, G. R., Lscona (Camp San Louis Obispo, Cal.) ..... Capt., A.U.S.



Shaw, E. E., Indianola (APO 834, New Orleans, La.) .....Capt., A.U.S.  
 Trueblood, C. A., Indianola (APO 871, New York, N. Y.) .....Capt., A.U.S.

#### Washington County

Boice, C. L., Washington (Fleet PO, New York, N. Y.) .....Lt., U.S.N.  
 Droz, A. K., Washington (Fleet PO, San Francisco, Cal.) .....Comdr., U.S.N.R.  
 Mast, T. M., Washington (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Miller, J. R., Wellman (Camp Breckenridge, Ky.) 1st Lt., A.U.S.  
 Stutsman, R. E., Washington (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 Ware, S. C., Kalona (APO 15275, New York, N. Y.) .....Capt., A.U.S.

#### Wayne County

Hyatt, C. N., Jr., Humeston (APO 6, San Francisco, Cal.) .....Capt., A.U.S.

#### Webster County

Baker, C. J., Fort Dodge (APO New York, N. Y.) ..Major, A.U.S.  
 Burch, E. S., Dayton (APO 709, San Francisco, Cal.) .....Capt., A.U.S.  
 Burleson, M. W., Fort Dodge (Pasadena, Cal.) .....Capt., A.U.S.  
 Coughlan, C. H., Fort Dodge (Fort Des Moines, Iowa) .....Major, A.U.S.  
 Dawson, E. B., Fort Dodge (San Diego, Cal.) .....Lt. Comdr., U.S.N.R.  
 Glesne, O. N., Ft. Dodge (New River, N. C.) .....Lt. Comdr., U.S.N.R.  
 Joyner, N. M., Fort Dodge (Minneapolis, Minn.) .....A.U.S.  
 Kluever, H. C., Fort Dodge (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Larsen, H. T., Fort Dodge (Pensacola, Fla.) .....Lt., U.S.N.R.  
 Shrader, J. C., Fort Dodge (APO 17346, New York, N. Y.) .....Lt. Col., A.U.S.  
 \*Thatcher, O. D., Fort Dodge (APO 634, New York, N. Y.) .....Capt., A.U.S.  
 Thatcher, W. C., Fort Dodge (APO 464, New York, N. Y.) .....Capt., A.U.S.  
 Van Patten, E. M., Ft. Dodge (El Paso, Texas) .....Capt., A.U.S.

#### Winneshiek County

Fritchen, A. F., Decorah (Mare Island, Cal.) ..Comdr., U.S.N.R.  
 Hospodarsky, L. J., Ridgeway (APO 638, New York, N. Y.) .....Lt. Col., A.U.S.  
 Howard, W. H., Decorah .....Capt., A.U.S.  
 Larson, L. E., Decorah (Fleet PO, San Francisco, Cal.) .....Lt. Comdr., U.S.N.R.  
 Svendsen, R. N., Decorah (San Diego, Cal.) .....Lt. (jg), U.S.N.R.  
 Van Besien, G. J., Decorah (Springfield, Mo.) .....Capt., A.U.S.

#### Woodbury County

Bettler, P. L., Sioux City (APO 962, San Francisco, Cal.) .....Lt. Col., A.U.S.  
 Blackstone, M. A., Sioux City (Camp Stoneman, Cal.) .....Capt., A.U.S.  
 Boe, Henry, Sioux City (APO 709, San Francisco, Cal.) .....Capt., A.U.S.  
 Burroughs, H. H., Sioux City (Fleet PO, San Francisco, Cal.) .....Lt., U.S.N.R.  
 †Cmeya, P. M., Sioux City (P.O.W., c/o Japanese Red Cross, Tokyo, Japan) .....Capt., A.U.S.  
 Cowan, J. A., Sioux City (Oklahoma City, Okla.) .....Major, U.S.P.H.S.  
 Crowder, R. E., Sioux City (Kansas City, Mo.) .....Lt. Comdr., U.S.N.R.  
 Dimsdale, L. J., Sioux City (Clinton, Iowa) .....1st Lt., A.U.S.  
 Down, H. I., Sioux City (APO 758, New York, N. Y.) .....Lt. Col., A.U.S.  
 Elson, V. J., Danbury (APO 9875, New York, N. Y.) .....Capt., A.U.S.  
 Frank, L. J., Sioux City (Vallejo, Cal.) .....Comdr., U.S.N.R.  
 Graham, J. W., Sioux City (Pensacola, Fla.) Lt. Comdr., U.S.N.R.  
 Grossman, M. D., Sioux City (APO 33, San Francisco, Cal.) .....Capt., A.U.S.  
 Harris, D. M., Sioux City (Carlisle Barracks, Pa.) .....Capt., A.U.S.  
 Heffernan, C. E., Sioux City (Sioux City, Iowa) .....Capt., A.U.S.  
 Hicks, W. K., Sioux City (Spokane, Wash.) .....Major, A.U.S.  
 Honke, E. M., Sioux City (Palm Springs, Cal.) .....Major, A.U.S.  
 Kaplan, David, Sioux City (APO 36, New York, N. Y.) .....Capt., A.U.S.  
 Knott, P. D., Sioux City (Camp Crowder, Mo.) .....Capt., A.U.S.  
 Knott, R. C., Sioux City (APO 403, New York, N. Y.) .....Major, A.U.S.  
 Krigsten, W. M., Sioux City (Springfield, Mo.) .....Lt. Col., A.U.S.  
 Lande, J. N., Sioux City (APO 63, New York, N. Y.) Major, A.U.S.  
 Martin, R. F., Sioux City (APO 652, New York, N. Y.) .....Capt., A.U.S.  
 Mattice, L. H., Danbury (APO 713, San Francisco, Cal.) .....1st Lt., A.U.S.  
 McQuiston, H. M., Sioux City (APO 813, New York, N. Y.) .....Capt., A.U.S.  
 Mugan, R. C., Sioux City (APO 210, New York, N. Y.) .....Capt., A.U.S.  
 Osincup, P. W., Sioux City (APO 520, New York, N. Y.) .....Capt., A.U.S.  
 Rarick, I. H., Sioux City (APO 980, Seattle, Wash.) Capt., A.U.S.  
 Reeder, J. E., Jr., Sioux City (APO 526, New York, N. Y.) .....Capt., A.U.S.  
 Ryan, M. J., Sioux City (Topeka, Kan.) .....Major, A.U.S.

Schwartz, J. W., Sioux City (APO 11108, New York, N. Y.) .....Lt. Col., A.U.S.  
 Tracy, J. S., Sioux City (Camp Van Dorn, Miss.) .....Major, A.U.S.

#### Worth County

Westly, G. S., Manly (APO 4580, San Francisco, Cal.) .....Major, A.U.S.

#### Wright County

Aagesen, C. A., Dows (APO 383, New York, N. Y.) .....Capt., A.U.S.  
 Bird, R. G., Clarion (Sacramento, Cal.) .....Lt. Comdr., U.S.N.R.  
 Doles, E. A., Clarion (Spokane, Wash.) .....Capt., A.U.S.  
 Gorrell, R. L., Clarion (Denver, Colo.) .....P.A. Surg., U.S.P.H.S.  
 Leinbach, S. P., Belmond (Farragut Air Base, Idaho)  
 Missildine, W. H., Eagle Grove (APO 25, San Francisco, Cal.) .....Capt., A.U.S.

(\*) Reported missing in action.

(†) Reported killed in action.

(‡) Reported prisoner of war.

### NORTH CENTRAL MEDICAL CONFERENCE

The North Central Medical Conference will be held Sunday, December 10, at 10:00 a. m. at the Hotel St. Paul in St. Paul, Minnesota. Dr. L. W. Larson of Bismarck, North Dakota, President of the Conference, will preside. An interesting session has been planned, and the subjects to be considered are of importance to all physicians in this territory. The following program has been arranged:

10:00 a. m. Planning for Postwar Medical Services

Responsibility of Medicine—L. W. Larson, M.D., Bismarck, Secretary, North Dakota State Medical Association

(Discussion of State Plans)

Prepaid Medical Service

Report on the Michigan Medical Service—L. Fernald Foster, M.D., Lansing, Secretary, Michigan State Medical Society

(Discussion of Progress in Other States)

12:30 p. m. Dinner

2:00 p. m. A Wisconsin Committee Takes a Trip—R. G. Arveson, M.D., Frederic, Councilor, State Medical Society of Wisconsin

The Council on Medical Service and Public Relations of the American Medical Association—A. W. Adson, M.D., Rochester, Member of the Council

My First Six Months in Washington, D. C.—J. W. Lawrence, M.D., Washington, Director of the Washington Bureau

Shall State Associations Develop Committees on Medical Service and Public Relations?—Mr. C. H. Crownhart, Madison, Secretary, State Medical Society of Wisconsin

(Discussion of State Proposals)

### SORRY, NO WOMAN'S AUXILIARY NEWS OR HISTORY OF MEDICINE THIS MONTH

Because of paper limitations, it became necessary to omit these sections in order that the entire transactions of the Special Meeting of the House of Delegates might be published.

## SOCIETY PROCEEDINGS

### Black Hawk County

The Black Hawk County Medical Society met in Waterloo at Black's Tea Room, Tuesday, November 21, at 6:30 p. m. A business meeting was held following dinner with the nomination of officers for the coming year.

### Hancock-Winnebago Society

Members of the Hancock-Winnebago Medical Society were guests of the board of trustees of the municipal hospital in Forest City at a dinner Wednesday evening, October 18, at the Iowa Hotel. Eleven doctors were present. The problem of organizing a staff for the hospital was discussed, and members of the Society are to be the members of the staff.

### Hardin County

A meeting of the Hardin County Medical Society was held in Eldora Tuesday evening, November 28. Dinner was served at the DeBaggio Cafe at 6:30 p. m., following which the members adjourned to Memorial Hospital for the scientific program. Russell S. Gerard, II, M.D., of Waterloo, addressed the group on Penicillin and Other Recently Discovered Drugs.

William E. Marsh, M.D., Secretary

### Johnson County

The Johnson County Medical Society held a meeting at Hotel Jefferson in Iowa City Wednesday, November 1, at 6:00 p. m. The scientific program consisted of a talk on the Control of Tuberculosis in Our Universities and Colleges by Charles E. Lyght, M.D., Director of Health Education for the National Tuberculosis Association of New York City. The discussion was opened by Max L. Durfee, M.D., Director of Student Health, State Teachers College, Cedar Falls, and continued by Chester I. Miller, M.D., Director of Student Health, State University of Iowa.

Rubin H. Flocks, M.D., Secretary

### Linn County

Members of the Linn County Medical Society met in Iowa City Thursday, November 9. An afternoon clinic was held in the Department of Surgery at the University Hospital at 4:00 p. m. Dinner was served at Hotel Jefferson at 6:30 p. m., following which the scientific program was presented. It featured a review of cases of hip fractures by Robert T. Tidrick, M.D., and Robert N. Bartels, M.D., of the Department of Surgery of the State University of Iowa College of Medicine. Frank R. Peterson, M.D., Head of the Department of Surgery, discussed the cases presented.

### Scott County

The Scott County Medical Society met at the Lend-A-Hand Club in Davenport Thursday, November 2, at 6:00 p. m. William D. Paul, M.D., of the State University of Iowa College of Medicine, who was the guest speaker of the evening, spoke on Fads and Fancies in Diet. Officers elected to serve the Society during 1945 are: Dr. William C. Goenne, president-elect; Dr. James Dunn, vice president; Dr. Leo J. Miltner, secretary; and Dr. Sidney G. Hands, treasurer. Drs. George Braunlich and William C. Goenne were named delegates to the State Society, and Drs. Roscoe P. Carney and Leslie V. Schroeder, alternates. Dr. Arthur A. Garside was inducted as president for the year, having been chosen president-elect last year. All officers are of Davenport with the exception of Dr. Schroeder, who is located in Walcott.

Leo J. Miltner, M.D., Secretary

### Tama County

A dinner meeting of the Tama County Medical Society was held in Toledo Monday evening, October 30, in the Legion Hall. The discussion of the evening was devoted mainly to the proposed medical service plan of the State Society, and the group voted against the plan.

### Wapello County

The December meetings of the Wapello County Medical Society are scheduled for December 5 and 19. The meeting on the fifth will be held at Hotel Ottumwa with dinner at 6:30 p. m., following which C. E. Folsome, M.D., of Linden, New Jersey, will speak on Cancer in Gynecology. On December 19 the meeting will be held at St. Joseph Hospital and F. O. W. Voigt, M.D., of Oskaloosa will be the guest speaker. His subject will be Monocytic Reactions Discussed on Case of Monocytic Leukemia.

### Washington County

The Washington County Medical Society held its regular monthly meeting Tuesday evening, November 14, at the Nurses Home in Washington. Following a turkey dinner, the members were addressed by Ewen M. McEwen, M.D., Dean of the State University of Iowa College of Medicine, who spoke on Medicine of the Future. There was 100 per cent attendance, and the following officers were elected for 1945: Dr. William L. Alcorn of Washington, president; Dr. Enos D. Miller of Wellman, vice president; Dr. William S. Kyle of Washington, secretary and treasurer; and Dr. Alcorn, delegate.

William S. Kyle, M.D., Secretary



**Woodbury County**

The Woodbury County Medical Society held two dinner meetings during the month of November. The first meeting, which was held Thursday evening, November 2, in the Club Room of the Martin Hotel, was to hear the report of the delegates concerning the special meeting of the House of Delegates in Des Moines November 1. The second meeting was held Thursday evening, November 16, in the Ballroom of the Martin Hotel. Cecil S. O'Brien, M.D., Professor and Head of the Department of Ophthalmology at the State University of Iowa College of Medicine, was the guest speaker of the evening. He discussed Eye Problems in General Practice.

Frank D. McCarthy, M.D., Secretary

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**PERSONAL MENTION**

Captain Hillard A. Tolliver, M.C., of Charles City has been awarded the bronze star for heroic achievement in action. Battalion surgeon in the 91st Division on the 5th Army front, he was cited for his courage in administering first aid on the field of battle under intense enemy shell fire. Captain Tolliver volunteered to go forward to an area under intense enemy artillery and mortar fire when medical aid men were casualties and first aid was needed. Although shells burst near him, he administered first aid and blood plasma saving the lives of many of the wounded.

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Dr. Gisle M. Lee of Thompson was honored by members of the Thompson Commercial Club and their wives at a banquet Monday evening, October 16, in recognition of the community's appreciation for his service during his fifty years of practice there. A silver gift in the form of one dollar for each year of service to the community was presented to Dr. Lee.

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Dr. Frank T. Launder of Garwin, who retired from active practice a few years ago, has sold his home in Garwin and with Mrs. Launder is moving to San Diego, California, to live.

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Dr. Jonathan W. Webb, who has practiced in Bonaparte for the past several years, has recently moved to Liberty, Missouri.

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Dr. James V. Yackley, formerly of Onida, South Dakota, has located in Denison for the practice of medicine. Dr. Yackley is a graduate of the Creighton University School of Medicine and served as resident physician at St. Catherine's Hospital in Omaha.

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Dr. Harry C. Durkee, formerly of Little Rock, is now located in Woodstock, Illinois. Dr. Durkee practiced in Little Rock for the past few years.

**MARRIAGE**

Miss Julia E. Cockburn and Dr. Frank R. Steel-smith of Des Moines were united in marriage in a candlelight service Wednesday evening, November 1, in the couple's new home. Following a wedding trip in the east they will reside in Des Moines at 5020 Grand Avenue. Dr. Steelsmith has been practicing in Des Moines for many years.

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**DEATH NOTICES**

Breniman, Elbridge Maxwell, of Ackley, aged seventy-three, died October 22 following a long illness of arthritis. He was graduated in 1899 from Rush Medical College, and at the time of his death was a member of the Hardin County and Iowa State Medical Societies.

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French, Charles Henry, of Cedar Rapids, aged seventy-three, died November 6 following a long illness. He was graduated in 1904 from St. Louis College of Physicians and Surgeons, and at the time of his death was a life member of the Linn County and Iowa State Medical Societies.

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Leehey, Florance Patrick, of Oelwein, aged sixty-nine, died November 6 following an illness of several months. He was graduated in 1902 from the University of Illinois College of Medicine in Chicago, and at the time of his death was a member of the Fayette County and Iowa State Medical Societies.

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Moore, Morris, of Walnut, aged seventy, died October 21 following a prolonged illness. He was graduated in 1901 from Creighton University School of Medicine, and at the time of his death was a member of the Pottawattamie County and Iowa State Medical Societies.

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Moorehead, Giles C., of Ida Grove, aged eighty-eight, died November 7. He was graduated in 1879 from the State University of Iowa College of Medicine, and at the time of his death was a life member of the Ida County and Iowa State Medical Societies.

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Newton, Dennis Lee, of Fort Madison, aged seventy-nine, died November 4 of a heart ailment. He was graduated in 1894 from Keokuk Medical College, and at the time of his death was a member of the Lee County and Iowa State Medical Societies.

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Steele, George Heath, of Belmond, aged sixty, died suddenly November 15 of a heart attack. He was graduated in 1910 from Rush Medical College, and at the time of his death was a member of the Wright County and Iowa State Medical Societies.

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Strohbehn, Edward F., of Davenport, aged seventy-nine, died November 11 following an illness of three months. He was graduated in 1891 from the State University of Iowa College of Medicine, and at the time of his death was a life member of the Scott County and Iowa State Medical Societies.

# THE JOURNAL BOOK SHELF

## BOOKS RECEIVED

**LIPPINCOTT'S QUICK REFERENCE BOOK FOR MEDICINE AND SURGERY**, a Clinical, Diagnostic, and Therapeutic Digest of General Medicine, Surgery, and the Specialties, Compiled Systematically from Modern Literature—By George E. Rehberger, M.D. Twelfth edition. J. B. Lippincott Company, Philadelphia, 1944. Price, \$15.00.

**OPERATIONS OF GENERAL SURGERY**—By Thomas G. Orr, M.D., professor of Surgery, University of Kansas School of Medicine, Kansas City, Kansas. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

**FEMALE ENDOCRINOLOGY**—By Jacob Hoffman, M.D., demonstrator in gynecology, Jefferson Medical College; pathologist in gynecology, Jefferson Hospital; formerly research fellow in endocrinology and director of the Endocrine Clinic, Gynecological Department, Jefferson Hospital, Philadelphia. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

**RADIATION AND CLIMATIC THERAPY OF CHRONIC PULMONARY DISEASES**, With Special Reference to Natural and Artificial Heliotherapy, X-ray Therapy, and Climatic Therapy of Chronic Pulmonary Diseases and All Forms of Tuberculosis—Edited by Edgar Mayer, M.D., assistant professor of clinical medicine, Cornell University Medical College, New York City; attending physician New York and Memorial Hospitals; special pulmonary consultant, New York State Department of Labor. The Williams & Wilkins Company, Baltimore, 1944. Price, \$5.00.

**PLASTER OF PARIS TECHNIC**—By Edwin O. Geckeler, M.D., associate professor of orthopaedic surgery, and chief of the fracture service, Hahnemann Medical College and Hospital, Philadelphia. The Williams & Wilkins Company, Baltimore, 1944. Price, \$3.00.

**VENTURES IN SCIENCE OF A COUNTRY SURGEON**—By Arthur E. Hertzler, M.D., Halstead, Kansas. Foreword by Raymond B. Allen, M.D., Dean of University of Illinois College of Medicine.

**THE TREATMENT OF PEPTIC ULCER**, Based Upon Ten Years' Experience at the New York Hospital—By George J. Heuer, M.D., professor of surgery, Cornell University Medical College and Surgeon-in-Chief of the New York Hospital. Assisted by Cranston Holman, M.D., assistant professor of clinical surgery, Cornell University Medical College, and William A. Cooper, assistant professor of Clinical Surgery, Cornell University Medical College. J. B. Lippincott Company, Philadelphia, 1944. Price, \$3.00.

**A TEXTBOOK OF PATHOLOGY**—By Robert Allan Moore, Edward Mallinckrodt professor of pathology, Washington University School of Medicine, St. Louis, Missouri. W. B. Saunders Company, Philadelphia, 1944. Price, \$10.00.

**HANDBOOK OF NUTRITION**, A Symposium prepared under the auspices of the Council on Foods and Nutrition of the American Medical Association. American Medical Association, Chicago, 1946. Price, \$2.50.

## BOOK REVIEWS

### DR. COLWELL'S DAILY LOG FOR PHYSICIANS

A brief, simple, accurate financial record for the physician's desk. Colwell Publishing Company, Champaign, Illinois, 1944. Price, \$6.00

Dr. Colwell's Daily Log for Physicians is truly all the publishers claim it to be—"A brief, simple, accurate financial record." Physicians who are not completely satisfied with their present record system may find the Daily Log the answer to their problems.

The book is a combination appointment book and bookkeeping record compiled on a loose-leaf plan. At the end of each month, following the daily pages, space is provided for listing inoculations, a business summary, expense sheets, personal account, surgical record, narcotics, payroll and withholdings, and a utility record sheet. At the end of the book there is space for an obstetric waiting list, notifiable diseases, annual summary, record of deaths, non-professional deductions, and a pay-as-you-go tax record with a comparative income schedule and quarterly estimate and payments.

Physicians desiring better records will want the 1945 edition of this simplified, single-volume record book. They will find it an invaluable addition to their office.

O. J. F.

### SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES

By George R. Herrmann, M.D., professor of medicine, University of Texas, director of the cardiovascular service, John Sealy Hospital, consultant in vascular diseases, U. S. Marine Hospital. Third edition. The

C. V. Mosby Company, St. Louis, 1944. Price, \$5.00

The third edition of Herrmann's Synopsis of Diseases of the Heart and Arteries has not changed the nature of the book materially. There are, however, four new chapters, dealing with nervous disorders, with blood pressure abnormalities, with essential hypertension, and with systemic heart disease. These increase the value of the present edition. The beginner in cardiology will find the volume helpful.

It occurs to this reviewer that certain material could have been omitted and more stress could have been placed on the phases of heart disease which are commonly encountered. It would have benefited the reader if the author had added his own critical evaluation of the more recently acquired knowledge.

The publisher has done his work very well

D. J. G.

### A TEXTBOOK OF PATHOLOGY

Edited by E. T. Bell, M.D., professor of pathology in the University of Minnesota, Minneapolis, Minnesota. Fifth edition, enlarged and thoroughly revised. Lea & Febiger, Philadelphia, 1944. Price, \$9.50.

This is the fifth edition of one of the foremost textbooks of pathology, edited by the eminent pathologist, E. T. Bell, in collaboration with B. J. Clauson and J. S. McCartney. It has been thoroughly revised. A large amount of new material has been introduced, yet it is still a compact, single volume containing 448 illustrations. Each subject is dealt with concisely but completely. Carefully selected, up-to-date references are found at the end of the discussion of each subject.



Bell has written many articles on nephritis and any physician will profit by reading his chapter on diseases of the urinary system. In this chapter, the essence of his conception of nephritis is contained in a few pages which can be read and digested in an hour or two. Bell's presentations of his studies of nephritis have always been based as much upon extensive clinical observations as upon careful pathologic surveys. As a result, he has brought forth a sound, practical approach to the concept of nephritis not attained by several who have written more lengthy treatises filled with vague, theoretic passages and unphysiologic classifications of nephritis.

R. F. B.

### THE URINARY TRACT

#### A Handbook of Roentgen Diagnosis

By H. Dabney Kerr, M.D., professor of radiology, State University of Iowa College of Medicine; and Carl L. Gillies, M.D., associate professor of radiology, State University of Iowa College of Medicine. The Year Book Publishers, Inc., Chicago, 1944. Price, \$5.50.

This little handbook of roentgen diagnosis of the urinary tract fills a long felt need of the urologist, radiologist, and practitioner. It is concise, practical, and readable, and all pertinent facts in the diagnosis of each urinary tract lesion are condensed into four sections: The Kidney, The Ureter, The Bladder, and The Urethra. The normal conditions and the variations of normal, as well as the abnormal, are included in each section.

The most remarkable feature of the book is the reproduction of the radiograph. There are approximately 475 reproductions and I failed to find a single one which did not have unusual clarity of detail, or which did not fully illustrate the point under discussion. A bibliography and index are included.

W. H. G.

### MANUAL OF MILITARY NEURO-PSYCHIATRY

Edited by Harry C. Solomon, M.D., professor of psychiatry, Harvard Medical School, medical director at the Boston Psychopathic Hospital; and Paul I. Yakovlev, M.D., clinical director, Walter E. Fernald State School, instructor in neurology at the Harvard Medical School. With the collaboration of 11 doctors. W. B. Saunders Company, Philadelphia, 1944. Price, \$6.00.

This is an exceedingly well organized collection of monographs on psychiatric and neurologic subjects by recognized authorities. Of special interest to the military psychiatrist is the carefully arranged "part" on Administration and Disposition of Neuropsychiatric Casualties in the Army, the Air Force, and the Navy.

The largest "part," occupying half of the 700 page book and entitled Clinical Entities, is the most valuable portion in this book. It is composed of seven-

teen items covering in brief most of the important clinical entities encountered in the brain, the spinal cord, and the peripheral nerves. Worthy of special attention are the portions by Merritt on Common Diseases of the Nervous System, and by Pollock on Peripheral Nerve Injuries. The treatment of injuries of the spinal cord is outlined clearly by Munro, along with an easy description of the tidal drainage apparatus and its application.

Under the title of Prophylaxis and Therapy, the management of the various psychiatric disorders is presented. The emphasis in this portion is on treatment of mental disorders in the militarized person with particular emphasis on their handling in combat zones and in military installations. An interesting discussion on group psychotherapy by Rome is included in this portion.

In the final division of the book, Special Topics are presented. These include such special features as neuropsychiatric disorders in the tropics, the treatment of convoy and torpedo casualties, and the physiology of flying. A review of the neuropsychiatric experiences in foreign armies is ably presented by Veits; and, finally, the summaries by Merritt on Cerebrospinal Fluid, and by Gibbs on the Electro-Encephalogram are alone worth the purchasing price of the book.

Besides being of exceptional value to the specialized military neuropsychiatrist, this book is recommended as an ideal reference, well indexed, for the busy civilian general practitioner whose practice must, perforce, include a fair percentage of neuropsychiatric disorders.

I. J. S.

### INTRODUCTION TO PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY

By L. Earle Arnow, M.D., director of biochemical research, Medical-Research Division, Sharp & Dohme, Inc., Glenolden, Pennsylvania. Introduction by Katharine J. Densford, R.N., director of the school of nursing and professor of nursing, University of Minnesota, Minneapolis. Second edition. The C. V. Mosby Company, St. Louis, 1943. Price, \$3.75.

The second edition of this textbook is a well-written, readable volume intended for nurses. It has been thoroughly revised and brought up to date, and is recommended as one of the outstanding textbooks in the field of nursing education.

The book is divided into three sections. In Part I is contained introductory material concerning basic laws and concepts of chemistry necessary for an understanding of the material presented in the second section. Part II is a discussion of physiologic and pathologic chemistry. This part is reasonably large and complete, yet the subject matter is concisely and carefully presented. It includes brief discussions of the application of chemistry to the diagnosis and treatment of human diseases. Part III is composed of laboratory exercises. It follows the order of presentation of material included in the preceding section.

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